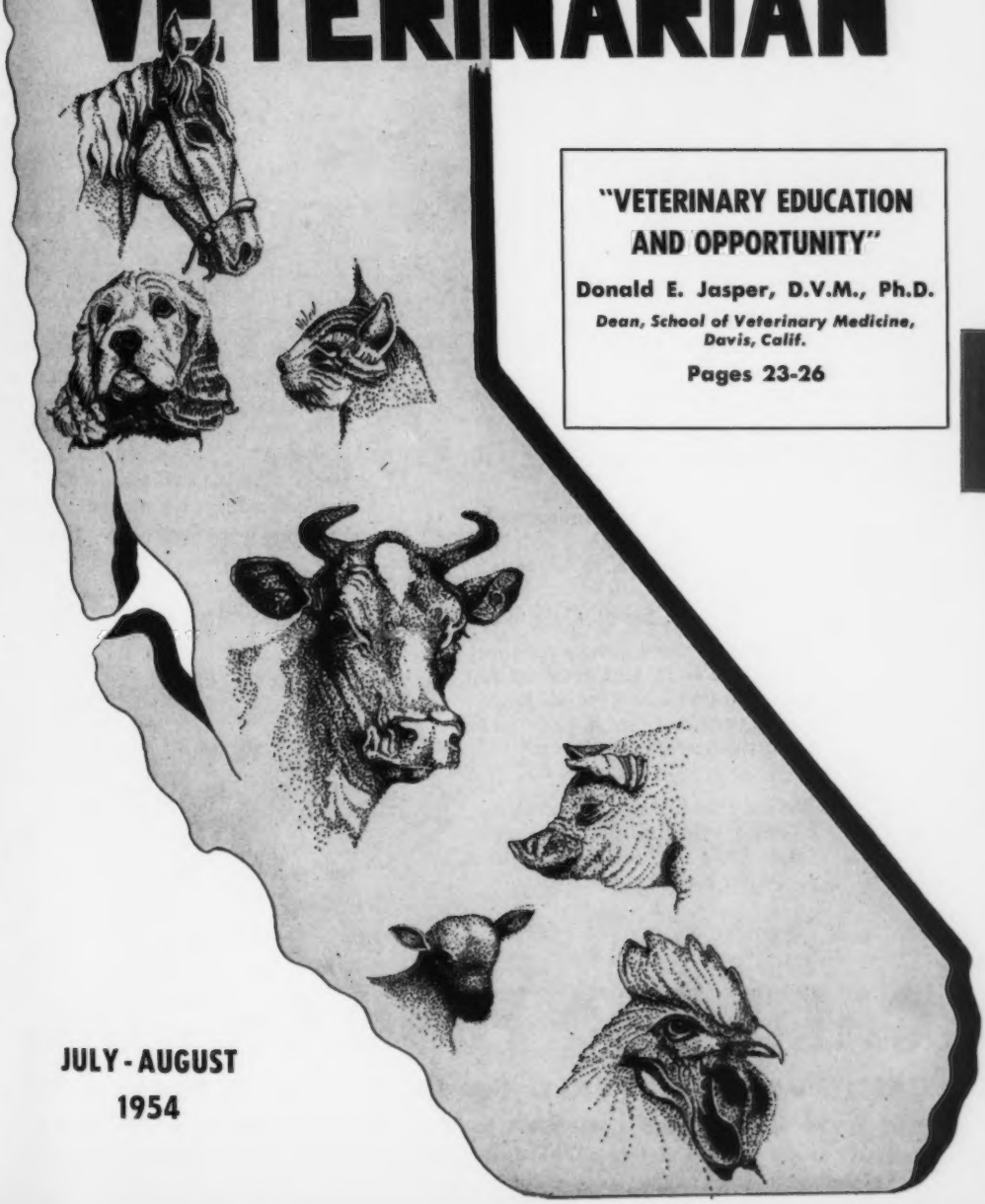
THE CALIFORNIA VETERINARIAN



"VETERINARY EDUCATION AND OPPORTUNITY"

Donald E. Jasper, D.V.M., Ph.D.

Dean, School of Veterinary Medicine, Davis, Calif.

Pages 23-26

JULY - AUGUST
1954

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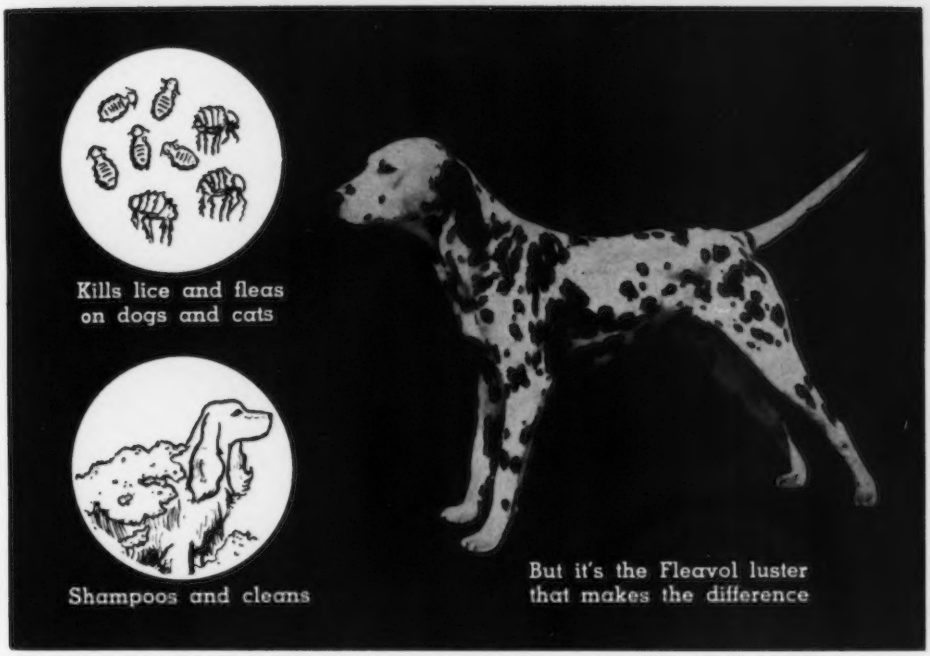

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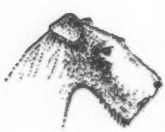

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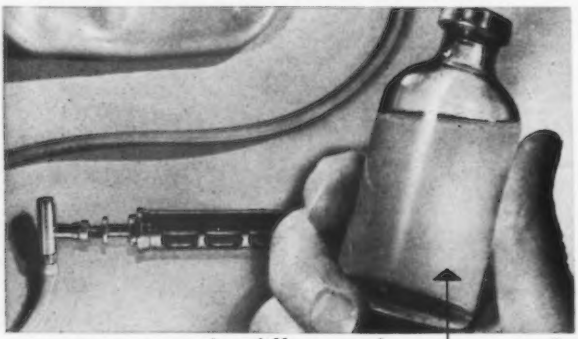

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THE CALIFORNIA VETERINARIAN

JULY-AUGUST, 1954

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Volume 7 — **Number 6**

Published Bi-Monthly by the California State Veterinary Medical Association, 3004 16th Street, San Francisco 3, California. Devoted to promote Veterinary Science, to increase the esteem of the general public for the veterinarian, to protect his rights and privileges and to elevate the standard of the profession generally in scientific intercourse. Address all communications to The California State Veterinary Medical Association, Charles S. Travers, Executive Secretary. Please notify us immediately of incorrect address or change of address.

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* Klausman, B. S.: The Use of a New Chemotherapeutic Agent to Arrest Bleeding in Animals, Vet. Med. *46*:282, 1951.

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President's Message

It is with the greatest humility that I accept the leadership of our fine organization this year. It is an honor and I hope to live up to the faith and confidence you have placed in me.

A number of projects are under way at the present time which are natural outgrowths of the tremendous progress of this association. Certain changes are being contemplated in the constitution and by-laws which are needed to expedite the work of our organization. One committee is attempting to establish a dynamic public relations committee badly needed for a long time. Legislation has priority this coming year and the able legislative committee is vigilant in seeing that legislation detrimental and unfavorable to the profession is stopped. At the same time this committee is sponsoring legislative matters aimed at improving the veterinary profession in this state. This group of men is to be especially commended for the fine work it is performing in our behalf.

As our profession continues to grow in stature and prestige we, as members of the profession, should constantly strive to improve our ethics, professional conduct and cooperation with the allied professions. Only in this way can we gain the recognition from the public which we desire.

I hope that the coming year will be another one of progress which has made our association the best state veterinary association in the United States. It is your faith, hard work and cooperation which has made this so.

W. J. Zontine, D.V.M.

Report of the Sixty-sixth Annual Convention of the California State Veterinary Medical Association

San Diego, California, June 21 to 23, 1954

San Diego's U. S. Grant Hotel served as headquarters for the June meeting. Accommodations and facilities were adequate, and the hotel's central location was an asset. The general meeting room was sufficiently large, but the exhibitors were scattered in several different locations—all on one floor, however.

The exhibits, from some of America's leading pharmaceutical houses and laboratories, were really attractive and well staffed. There were displays of some very modern equipment, new products, and some recent additions to pharmaceutical lines which open new avenues in the field of Veterinary medicine.

Speakers are always asked to provide condensations of their papers suitable for publication, and Chairmen are asked to collect these for this Journal. We are grateful to those speakers who did give us papers, and we are especially indebted to Dr. Victor Hall of Lakeview, Oregon, who brought his tape recorder and covered the large-animal sessions for us.

Monday Afternoon

GENERAL SESSION

The program opened with the invocation by Dr. S. Dean McBride of the Point Loma Community Presbyterian Church. Since Mayor Butler had a conflicting engagement, the formal welcome was postponed.

Veterinary Education

Dr. D. E. Jasper, discussed the requirements for veterinary students now and in the past, and pointed out that the objective of the school was to turn out men and women capable of building on the basic information the school gives them. It would be impossible to teach all the knowledge now available. He spoke of the ever-widening field of opportunity, especially in preventive medicine. He also asked for opinions and constructive suggestions from veterinarians now in the various fields. His paper appears in this issue.

Practical Research

Dr. B. T. Simms remarked that most of the routine work of the practitioner today is concerned with procedures that were unknown fifty years ago. Yet he offered the refreshing (and well founded) opinion that the progress in veterinary medicine is not remarkable, since it is largely based on progress in other fields which have advanced as fast or faster. There is need for even more rapid advance in our work since advances in transportation and food preservation make difficulties for us. A plague traveled four to six miles a year in North Carolina 200 years ago, but recently when foot-and-mouth disease was diagnosed in Canada, it was found that in six weeks cloven-hoofed animals had been received from the area by almost three-fourths of the United States, including Florida and Southern California, almost 5,000 miles away. He emphasized that team work is required to control or eradicate disease, including the livestock owner as well as the research man and veterinarian. Disease control is a state of mind, and whenever we have decided not to tolerate a disease we have got rid of it. Vesicular exanthema could have been eradicated fifteen years ago much more cheaply than control measures will cost now, when it has spread to 39 states. Dr. Simms discussed VE, anaplasmosis, atrophic rhinitis, brucellosis, bluetongue, and the increase in parasitism that follows increasing numbers of livestock per acre. He spoke off the cuff, but has promised a brief of his talk for publication.

Welcome and Response

At this point word was received that the mayor was on his way, so a recess was held. Mayor Butler arrived and welcomed the convention, and President DeLay responded suitably.

Hormone Therapy

The final speaker for the day was Dr. Hinze of Carnation Milk Farms. He spoke on the complicated and controversial subject of breeding problems and hormone therapy, and has promised to provide a copy of his talk for publication.

Business Meeting

The business meeting was well attended, and all business went off smoothly with a minimum of discussion. The group adopted a recommendation by Dr. Putney, which stated that since no rabies control program has ever been successful without mass vaccination of dogs, this proviso should be included in antirabies legislation. Frank Pellissier of Whittier, a long-time friend and supporter of the Association, was voted honorary membership. Dr. Jasper invited the group to Davis for the winter meeting, and the invitation was accepted without discussion. There was some discusion of whether the summer meeting should be held in Monterey, Santa Barbara, or Riverside. Monterey won the vote. All officers moved up one step in the election, as

usual. Dr. Fred Walker was elected member to the executive committee, and Dr. Russell Cope was elected treasurer to succeed Dr. LeDonne, who resigned recently. All elections were unanimous. Dr. Ozanian installed the new officers.

Tuesday Morning

SMALL ANIMAL SESSION

Soft Palate

Dr. Hare gave a very interesting discussion, and showed a remarkably clear film on removal of the extra soft palate in bulldogs and similar breeds. It is a satisfying operation since results are immediate and cause great relief to the dog and his owner. Future operative procedures are made much safer.

Psittacosis

Dr. Minsky gave the history and implications of this disease of fowl and mammals, described the signs, which are not at all pathognomonic, and discussed the value of antibiotics in treatment. Laboratory diagnosis is essential. A copy of his talk appears elsewhere in this issue. Dr. Dean's talk was delayed until after lunch, since it was late. He showed why the California public health authorities no longer consider psittacosis to be of public health significance, and have relaxed regulations. He also described the voluntary measures now undertaken by breeders and distributors in California. In contrast, other states have added restrictions more stringent than California's original rules.

LARGE ANIMAL SESSION

The talk by Dr. Smith on cattle diseases and Dr. Armistead's talk on bloat were accompaniments to slides, and no abstracts were made available.

Anaplasmosis

Dr. Christensen described the classic picture of anaplasmosis, using slides. He mentioned methods of transmission, diagnosis, stages of the disease. The veterinarian may not be called until the stage of anemia when laboratory findings may be negative. He also discussed recent approaches in therapy and the limited value of antibiotics in the early stages. A couple of gallons of blood transfused and repeated in 48 hours is useful. Antimalarial drugs and arsenicals have been of no value. Massive daily doses of aureomycin and terramycin over a period of time will destroy the carrier state; it will take 30 to 50 Gm. over 14 to 16 days.

Tuesday Afternoon

SMALL ANIMAL SESSION

Nutrition and Antibodies

Dr. Jarvis has found that there is a definite relation between adequate nutrition and adequate antibody formation. A high protein diet is of no benefit, however, if the protein is not digestible. His article appears in this issue.

Chinchillas

Dr. Lindsey was asked to cover almost the entire field of chinchilla practice, and did. He discussed handling as well as medication and surgery. His paper appears in this issue.

LARGE ANIMAL SESSION

Brucellosis

Dr. Cameron gave a brief discussion of the present status and problems in brucellosis control.

Beef Cattle

Dr. Pattridge warned against the possibility that the next attempt at socialized medicine may be through the veterinarian. He dis-

Dr. W. J. Zontine, President CSVMA, and Brig. Gen. J. A. McCallam, President AVMA. General McCallam was guest speaker at the President's Banquet, Tuesday evening, June 22d.

cussed livestock insurance and the importance of proper examinations and records. In cases of actinobacillosis he takes enough skin to get first intention healing rather than an unsightly scar. He advises ablation for cancer eye in Herefords; he does not pack the socket and thus gets less depression. He uses beta-ray irradiation successfully for corneal carcinoma. Separate grooming utensils will cut down the incidence of warts; he uses vaccine routinely for treatment, and surgery as indicated. Infertility is a major problem; he advises routine examination 30 to 60 days after each breeding season. He discusesd treatments. He also discussed rations, interdigital fibromas, tie cutting, and inguinal hernia. He is strong for masks during surgery to cut down infection.

Mastitis

Dr. Schalm's paper describing the Whiteside test is presented elsewhere in this issue.

Difficult Breeders

Dr. Hinze advises courteous behavior toward inseminators and herdsmen and owners. The experienced inseminator recognizes abnormalities, and he sees the cow at the best time to catch uterine pathology. Belittling him will not encourage him to advise calling you. Cows should be bred not earlier than 60 days or later than 100 days after parturition. Slides showed normal and abnormal reproductive tract and photomicrographs of developing embryos. Infertility work must be on a herd basis to do the dairyman any good. Cows should be examined routinely six weeks after freshening. Treatment during heat is advisable since the uterus is then highly resistant to infection; it will not disturb the embryo.

Tuesday Evening

Banquet

The Dinner Dance was enjoyed by a large and enthusiastic crowd. All those at the speakers' table were introduced. Mr. Pellissier was given a scroll in honor of his honorary membership. General McCallam next spoke on the relation of organization to progress. Mr. Travers gave out the exhibitor's prizes. Golf trophies were distributed. After this the orchestra played for dancing.

Wednesday Morning

SMALL ANIMAL SESSION

Surgical Technic

Dr. Hofmann completed his talk on shortcuts begun Tuesday morning, before describing his aseptic surgical technic. He demonstrated his surgical packs put up in Mason jars, and gave the advantages of sound technic. His paper appears elsewhere in this issue.

Feline Diseases

Dr. Jarvis emphasized that low white count is the most reliable diagnostic sign for panleukopenia. He finds that most patients do not show a temperature rise over 103.5, in contrast to findings of local practitioners. He also discussed feline pneumonitis, feline infectious anemia, ear mites, and necrotic glossitis.

SPCA

Mr. Friedrichs gave the history of the SPCA movement and its present aims and attitudes. Excerpts from his talk appear elsewhere in this issue.

LARGE ANIMAL SESSION

None of the speakers provided copies of their talks, and the tape recorder was out of commission. No report is possible.

Wednesday Afternoon

Barbecue

The lunch was well attended and the barbecued beef was excellent. Tables were set up in the clinic grounds and decorated in a charming and unusual way with wildflowers strewn down the middle.

Clinic

The clinic was held in the service yard of the hospital where the veterinarians could observe the equipment and facilities used by the zoo in handling wild animals. In charge of the clinic was Dr. Glen G. Crosbie, zoo staff veterinarian, assisted by San Diego veterinarians Dr. W. J. Dedrick, Dr. A. N. Davis, Dr. R. D. Immenschuh, Dr. M. J. Smith, and Dr. E. R. Quortrup. Dr. Crosbie discussed methods of handling wild animals and birds and demonstrated equipment.

A Capuchin monkey was given intravenous anesthesia, and then Dr. M. J. Smith demonstrated the extraction of canine teeth. Intravenous anesthesia was administered in the lateral coccygeal vein of a lion, after which Dr. W. J. Dedrick demonstrated the removal of claws. Dr. Crosbie demonstrated a method of pinioning birds, using a swan. He also showed the process for small birds of setting a broken leg with scotch tape or adhesive tape.

Life Members to CSVMA

Six long-time members of the Association were made Life Members at the San Diego meeting, in recognition of their work for the good of the profession. They are: Dr. A. C. Rosenberger, Dr. E. H. Humphrey, Dr. D. Henry Wyatt, Dr. George P. Rebold, Dr. C. S. Brooks and Dr. D. McArdle.

Veterinary Education and Opportunity*

DONALD E. JASPER, D.V.M., Ph.D.

Dean, School of Veterinary Medicine, University of California, Davis

You have been very gracious to invite me to speak to you on this occasion on the subject of "Veterinary Education and Opportunity." It is appropriate too that you have this opportunity of gaining some insight into the educational philosophy of the one who so soon is to shoulder the administrative responsibilities for California's School of Veterinary Medicine which have been so ably borne by our beloved Dr. Hart. This subject is of vital importance to all of us and I, in turn, invite your points of view and constructive suggestions.

The evolution of all medical sciences has brought us very quickly from centuries of little or no formal educational requirements to our present state of a rigidly fixed curriculum covering a minimum of six collegiate years and above average performance for admission to veterinary school. Additional evidences of aptitude, animal experience, and sincerity of motivation are required. One may conclude, therefore, that a reasonable opportunity is presented to graduate veterinarians well equipped to enter professional life.

If there are any who still maintain that six years is too long to require, that good boys without financial backing can't make it, I will agree that they may sometimes be discouraged from trying, but I am convinced that any good boy able to go four years can find ways and means to make another two. This is illustrated many times each year at the University. I do not believe a creditable job of training could be done in less time.

The rapid advance of technology on every front has posed serious problems in educational policy. Our capacity for learning and retention have long since ceased to be able to comprehend the whole of man's knowledge and the individual, try as he may, must be satisfied with some limited understanding of a relatively small field, such as veterinary medicine. We, as veterinarians, however, find ourselves in a complex world of social and economic conflict, where physicists make decisions of world-wide political and social import, and scientists determine the course of warfare. As community leaders, especially in rural areas, the veterinarian is looked to as a man of sound judgment in many fields because he has proved himself in his specialty. As citizens, veterinarians must exercise their duties and privileges by voting and by serving various community interests. As a business man, he needs an understanding of economic laws, cycles and trends. To fulfill these obligations, technical information is not sufficient. Provision is, therefore, made in the pre-veterinary curriculum for an introduction to those disciplines which promote understanding of problems confronting humanity, appreciation of our heritage, and preparation for honorable conduct in public life.

Although we accept the need for whatever general education may be crowded into a six-year curriculum, the task of the Veterinary School is to prepare the student for professional life. Each year new graduates go out to be closely scrutinized by the public they serve, and especially by older practicing veterinarians. Each year the reports come back, some assuring us that the job of educating is satisfactorily done, some indicating areas needing improvement, some praising too highly, some unduly critical.

For years, the schools have received the common complaint that the new graduate needs more experience. The young dentist, lawyer, preacher, or physician meets the same criticism which, at times, is carried back to the schools. This should not be a criticism. It should be a recognized fact. It will always be a fact. There is no substitute for experience in any endeavor. The most important objective from the standpoint of the school is to turn out men and women who are prepared to profit and learn by their post-graduate experience.

The rapid advances in every phase of veterinary medical science during only the past 15 years have made the task of the educator far more difficult. Almost the entire armamentarium has changed. Many of the older drugs and medicinal preparations still have use and must be known but to these have been added an entirely new world of sulfonamides, antibiotics, detergents, anesthetics, and complex endocrine products and recommendations. From chemistry, nutrition and anatomy to medicine and surgery, example after example of vastly increased amounts of desirable knowledge could be cited. Yet only a slightly increased amount of time for education is available.

In spite of the necessity for imparting more information in each of an increasing number of related fields of veterinary medicine, the School in Davis and, I think, all others as well have not decreased the time students spend in the clinic, but have conscientiously endeavored to increase the value of clinics to the student by provision of a larger clinic staff for more individual instruction and attention, closer supervision, and more critical requirements of diagnosis and therapy.

For some time now, basic science training in veterinary schools has generally been well done. Clinical instruction on the other hand has been spotty. Some instructors have been very good, others were the epitome of medi-

*Presented at the CSVMA Convention, San Diego, June 21-23, 1954.

ocrity. Some were in command of limited fields but neglected others. In general, clinicians in our veterinary schools, largely as a result of an overwhelming load of teaching and clinic duties have been forced to labor under the expediency of the moment. It is not surprising that, under such circumstances, basic knowledge would slowly slip away and with it the ability to properly build practices of clinical reasoning upon the scientific foundation so meticulously laid for that very purpose.

It is my belief that the greatest advances in veterinary education within the next decade will be made in the area of clinical training. This does not mean greatly increased numbers of patients for student contact, nor does it mean increased time spent in the clinic. It does mean greater efficiency in utilization of the time already available and more meticulous study of each patient. It means fuller use of the laboratory and the age-old essentials of a good physical examination and case history. It means accurate and complete hospital records. It means opportunity—even necessity—for the student to study the case and propose diagnosis and therapy for critical discussion by the clinician in charge. It means active cooperation by clinical pathologists, pathologists, physiologists, and other basic science specialists in the problem cases of the clinic. It means, above all, clinicians both sound in training and ample in experience, thoroughly conversant with the applicable basic sciences and possessed of an obsession for teaching. Such a clinician is the fullest expression, the peak of veterinary educational achievement. It is to men of this type that we must look to finish the formal education of our future veterinarians.

To those who may question the "practicality" of such an approach to clinical training, I should like to recall to your attention that the most effective instruction emphasizes fundamental principles rather than practical facts. To quote Barzun,[1] "For it is the oldest fallacy about schooling to suppose that it can train a man for 'practical life.' Inevitably while the plan of study is being taught, 'practical life' has moved on." None of you, I'm sure, to paraphrase W. Barry Wood, Jr.,[2] need again be reminded that what was practical yesterday may be obsolete tomorrow. In contrast, the basic principles in medicine are relatively stable and only knowledge based upon principles is sufficiently enduring to aid the modern veterinarian in his endless task of keeping pace with the times.

The following excerpt from a lecture recently published in the *British Medical Journal* is sufficiently appropriate to the situation in veterinary medicine to be quoted,[3] "The student can scarcely be expected to realize what some of his teachers may forget, that when he qualifies it is not so much what he knows that matters as how well fitted he is to learn by his subsequent experience, and how well equipped he is to sift and assimilate the new diagnostic and therapeutic advances which will certainly come during his practicing lifetime. It may once have been true that the practice of medicine did not greatly change between qualification and retirement, but nothing could be further from the truth now. The student who qualified twenty years ago has since had to learn a great deal to remain even tolerably efficient. Of course, there are aids to this necessary postgraduate learning, but the doctor must have a fairly well developed capacity for critical thought and judgment. It is this capacity to examine critically new ideas, to select those worth while, and to incorporate them in the body of his knowledge which alone justifies the claim of the doctor to be a member of one of the learned professions."

In order to command our rightful place, we veterinarians must indeed be able to sift the wheat from the chaff. An increasingly large percentage of our clients are college educated. The livestock men are feeding, breeding, and managing in a scientific manner. The pet owners are more and more getting a smattering of medical knowledge from popular articles. Farm advisors, feed salesmen, druggists, and others are continually giving out animal health information, some of which is very good. In every instance, the veterinarian needs facts and basic knowledge to assure himself as well as others that he is the one best able to cope with animal health problems. *Knowledge is always practical.*

The realization that nearly 4,000 students are enrolled in our veterinary colleges as compared with 1,000 twenty years ago and 2,000 ten years ago leads to occasional expressions of concern. In a profession of only about 15,000 members in the United States, this means a complete turnover would be possible in 15 years. This, of course, will not happen. There will instead be an increase in our veterinary population of about 60 per cent. This rather large figure is not quite so startling when one stops to consider that the population of California veterinarians has increased 50 per cent in the past four years. I realize, of course, that a definite shortage of veterinarians has existed for sometime, and much of this increase was to meet this need, which is not quite so pressing as it was. The fact remains, however, that California, as well as many other states, has been soaking up veterinarians like a sponge. Signs of local saturation have appeared, to be sure, but there are

[1]Barzun, J.: Teacher in America, 1945, Little, Brown and Co.

[2]Wood, W. Barry, Jr.: Teacher of Medicine, *The Jr. Lab. & Clin. Med.*, 41(1): 6-10, 1953.

[3]Jones, A. Morgan: Medical Progress and Medical Education, *British Medical Journal*, 2:466, 1952.

still dry spots and we do not yet know the optimum number required for adequate veterinary service. Again and again, men have moved to areas some would call questionable, established practices, and then taken in other veterinarians to help. Again and again livestock and pet owners are making increasing use of veterinary service when it becomes available. This year again, we have had to tell prospective employers that all the senior class had located before commencement.

The increasing unit cost of livestock, the decreasing margin between profit and loss necessitating optimum management and disease control, and scientific and businesslike farming methods, all bring the veterinarian into sharper focus. The concern over an animal's health and the tendency of pet owners to treat their pets as members of the family increase the need for small animal hospitals. The pursuit of veterinary practice is the mainstay of our profession but there are other avenues open, opening, or which may be opened which will detract from the number entering practice.

The public health veterinarian has received much publicity in recent years and at times the need for such men has been overplayed. Veterinarians in public health work are pioneers, forging a new career for veterinarians out of unfamiliar ground. They are doing a grand job and improving our prestige steadily. All graduate schools of public health accept veterinarians for advanced degrees and nearly 200 have been granted to date. Most of these men are engaged in some sort of public health work and a steady increase in numbers doing so can be expected.

A smaller field, but one in need of development, is that of animal care. There is a growing realization among medical research groups that professional supervision of experimental animals is desirable. Several medical schools and universities have veterinarians on their staffs for this purpose and the need for such men is definitely increasing. Properly qualified veterinarians also participate in medical schools' research problems. In the future most medical schools and public health schools are likely to have veterinarians on their faculties.

Veterinary research, always among the most productive of the medical sciences, has been hampered by insufficient numbers of investigators to cope with the increasing demands for conquest of animal disease. Virtually every state now has a larger research team than it did ten years ago. The research organization, whether public and private, not only give employment to more veterinarians, but are continually putting tools in the hands of the practitioner which makes his services more in demand.

The arrival on our shores every day of thousands of ships and airplanes from every part of the world greatly increases the possibilities of entry of exotic disease. Our experience with bluetongue, the recent diagnosis of virus diarrhea and of equine infectious anemia at the University for the first time in California, and last winter's strange respiratory disease in cattle indicate problems not only for our research men, but for our regulatory officials as well. When vesicular exanthema, foot and mouth disease, brucellosis and T.B., are controlled, other diseases will take their places, perhaps not so simple of solution, and our regulatory veterinarians can look forward to years of challenging disease control problems.

We can be encouraged by the realization that such places as the Donner Laboratories, that great center of nuclear physics where the atom was first dissembled, is looking for a veterinarian to enroll for a Ph.D. in medical physics, that the Department of Pharmacology of the Medical School in San Francisco is inquiring for a veterinarian to enter graduate training with them. These are only straws in a gentle wind, but they serve to show the direction the breeze is blowing. It is toward utilization of veterinary skill and training and an appreciation of the veterinarian in ever-widening circles. This is true only because of the soundness and breadth of training given to veterinarians.

For the veterinarian choosing graduate training, I see an almost limitless field of opportunity. In every academic discipline related to veterinary medicine, the D.V.M. degree signifies a special applicable field of knowledge which combined with the advanced degree will open many doors of endeavor. Even among practicing veterinarians there are areas which will call for, or soon will be calling for special training and experience. Some have become especially proficient in diseases of certain species, of certain organs, or of specialized surgical, medicinal or radiological treatment. This tendency is sure to increase and with it the need for special post-graduate instruction and experience. In this way, adequate preparation leads to new opportunities for more veterinarians.

If there is a place for some specialized training for research men, teachers, and practitioners, is it not true that other areas of veterinary endeavor may benefit by specialized training? If, for example, the physician must supplement his normal training and experience before qualifying for public health work, might not we find it advantageous for young veterinarians entering regulatory work to have special training in epidemiology, sanitation, biometry, and public administration? Young men with this extra preparation will be better prepared in the future to work on an equal basis with their physician colleagues on mutual human and animal health problems. Ultimately, a better salary for regulatory veterinarians, an improved interprofessional recognition, and an even more efficient regulatory service would result.

Although we greatly appreciate the increas-

ing number of outlets for professional activity, our major contribution must always be the care and protection of the nation's livestock and pet animals. There can be little doubt, barring national, economic or military emergency, that all veterinarians who are to be graduated from the present schools can be profitably employed. On one hand we have expanding urban and residential areas claiming land otherwise used for food production. On the other hand, our population is increasing rapidly forcing higher production from a more and more concentrated animal industry with the attendant disease problems incidental to confined quarters. A third development will be utilization of land now considered marginal but made productive by such measures as irrigation of deserts, burning the brush of lower mountain ranges, and uprooting the mesquite from thousands of Texas acres.

As is the case in human medicine, we must turn our attention more and more to the practice of preventive medicine. The veterinarian must assume his rightful position of leadership by using his knowledge of genetics to promote maximum production and the elimination of hereditary diseases, such as dwarfism in cattle. He must apply the basic sciences of nutrition, physiology, microbiology, immunology and parasitology. He must, by his factual information, continue to lead the way in promoting the health of animals and not be content only to patch them up when accidents occur or things go wrong.

We are grateful for the excellent job our predecessors have done, the record they have made, but we cannot be satisfied. We are grateful for the increasing demands for veterinary services in practice and elsewhere, but we cannot take them for granted. We must earn our keep and prove our value every step of the way or the ever-present outsider who would encroach upon our rightful perogatives will step in and take over.

That is why there is such a close relationship between education and opportunity. I am not convinced that opportunity knocks only once, but I am convinced that it need not knock at all for the man unprepared to do the job. It is our task in the schools so to train our students that they may enter any of the many specialties of veterinary medicine prepared to build upon the fundamentals of veterinary medicine and surgery the refinements required by their individual calling. If we do our duty well, the profession need not fear a swelling of our ranks beyond a normal carrying capacity but will on the other hand find itself more firmly entrenched as a necessary adjunct to the efficient performance of an even greater number of important activities.

Dr. Ralph L. Hosker, Altamont, is currently serving with the U. S. Army, stationed in Japan.

Special Breakfasts and Luncheons

Two special breakfasts were held in the U. S. Grant Hotel, both of which were well attended. On Monday, June 21st, the **Mastitis Breakfast** found the following in attendance: O. W. Schalm, F. P. Wilcox, Kenneth G. McKay, G. K. Cooke, Frank L. Pellissier, Ben Dean, D. E. Jasper, W. J. Zontine, R. V. Jessup, Robert Ormsbee, R. E. Klofanda, H. J. Hill, F. X. Gassner, C. H. Ozanian and Charles S. Travers.

At this meeting Dr. Ormsbee and Mr. Pellissier were co-chairmen. Numerous problems pertinent to mastitis were discussed.

On Tuesday, June 22d, the **Artificial Insemination Breakfast** was attended by Thomas J. Carleton, Rufus R. Norton, Floyd W. Koebel, C. H. Ozanian, Charles D. Stafford, A. M. McCapes, W. J. Zontine, Kenneth G. McKay, D. E. Jasper, Paul DeLay, A. Mack Scott, Rodney Ingraham, Robert Ormsbee, R. V. Jessup, Lawrence Minsky, George H. Hart, A. R. Inman, L. D. Meyers, G. K. Cooke, R. L. Collinson and Charles S. Travers.

The **Local Association Luncheon** was on Monday, June 21st. Thirteen groups were represented and discussion included the cementing of closer relationship with the State Association, public relations, etc. Attending were: W. J. Dedrick, N. D. Cash, T. B. Eville, R. S. Dickson, W. W. Putney, Richard Barsaleau, J. N. Henry, S. M. Dingwall, W. J. Zontine, Paul DeLay, Charles D. Stafford, G. S. Jackson and Charles S. Travers.

The **Legislative Committee Luncheon,** Tuesday, June 22d, was attended by C. H. Ozanian, R. L. Collinson, H. A. Snelbaker, W. W. Putney, W. J. Zontine, Paul DeLay, Ben Dean and Charles S. Travers.

The group discussed legislative matters to come up in January, 1955. President Zontine will shortly appoint a new committee to be active for the coming year.

Dr. Charles J. Parshall Opens New Dog and Cat Hospital

Dr. Charles J. Parshall, well-known and popular San Francisco veterinarian, announced the opening of his new dog and cat hospital, July 1st, at 47 Jackson Street, Hayward, California. He makes his home nearby, at 2257 Coleman Avenue.

His host of friends in San Francisco and throughout the Bay Area join us in wishing every success to Dr. Parshall in his new location.

Dr. Parshall has been appointed to fill the unexpired term of the late Dr. C. E. Wicktor, in the House of Representatives, AVMA. Dr. F. B. Pulling, Jr., Atascadero, is alternate.

The Whiteside Test for Detection of Mastitic Milk*

O. W. SCHALM, D.V.M., Ph.D., and D. M. GRAY, B.S., M.S.

School of Veterinary Medicine, University of California, Davis

In 1939, W. H. Whiteside,[1] bacteriologist at the Kennedy Biological Laboratories Limited, Otterville, Ontario, Canada, described a new test for the detection of mastitic milk as follows: "It was found that on addition of 2 cc normal sodium hydroxide to 10 cc milk of cows suffering from mastitis, and subsequent beating of the mixture with a glass rod, a viscid mass was formed. The reaction takes place immediately and at room temperature. The test, however, fails if the test mixture is brought to the boiling point. The test becomes positive before the brom-thymol blue and strip cup tests and is seen most markedly during the acute stage of the infection. It is invariably negative with milk of uninfected cows . . . ." Murphy and Hanson[2] modified the test by using one drop of normal NaOH and five drops of milk on a glass plate and stirring the mixture vigorously for 20 seconds. These investigators designated the phenomenon as the Whiteside test and suggested scoring the reactions as —, ±, 1+, 2+, 3+, and 4+. Murphy and Hanson compared the reactions with the leukocyte count/cc of milk. Reactions of 2+ or above were found to occur with milks having more than 500,000 leukocytes/cc whereas 73.1 per cent of 1+ reactions, 28.3 per cent of ± reactions and only 3.9 per cent of — reactions were observed to be correlated with counts of 500,000 leukocytes/cc of milk. In a subsequent publication,[3] Murphy stated that the Whiteside test possesses greater accuracy than ordinary field tests in the indirect detection of chronic bovine mastitis. In trials to improve the efficiency of the test, Murphy found that the intensity of the reaction was increased by refrigerating milk prior to conducting the test and he proposed the use of two drops of normal NaOH to five drops of milk when the test is conducted on non-refrigerated milk. Murphy stated also that mixed foremilk from the individual quarters or bucket milk may be employed but that the dilution factor may reduce the intensity of the reaction. Petersen, Grimmell, and Schipper[4] investigated some of the factors involved in the Whiteside reaction. They contended that the reaction is not due to leukocytes *per se* but is caused by fibrin which accompanies the leukocytes in an inflammatory reaction.

Procedure

The Whiteside test, as modified by Murphy and Hanson, has been compared with the total cell count and polymorphonuclear leukocyte count/cc of milk on nearly 5,000 samples obtained from six dairy herds having a total of about 650 mature cows. The milk samples were of three types; namely, samples taken from the milk bucket at completion of milking, composite samples of mixed foremilk from individual cows, and foremilk from the individual mammary quarters.

Bucket samples were collected from every milking cow in a herd and this was usually followed by the collection of foremilk, either composite or individual gland samples, from the Whiteside-positive cows. The foremilks were drawn into sterile vials containing brom-cresol purple for Hotis test observations and streaking on blood agar. However sufficient quantity for the Whiteside test and the cell count was removed before incubation of the Hotis test sample.

Routinely, the milk was held over night in the refrigerator and the test conducted on the cold milk using five drops of milk and one drop of normal NaOH.† When the test was made on warm fresh milk at the dairy immediately after collection, then two drops of sodium hydroxide to five drops of milk were used as suggested by Murphy. The mixture was stirred vigorously for about 20 seconds with a round wood applicator stick and spread over an area about the size of a half dollar. Minor reactions were not readily apparent if the area over which the mixture was spread was too small.

The six degrees of reaction proposed by Murphy were retained. Plate 1 shows the appearance of the reactions and they may be described as follows:

— = the mixture remains opaque and free of particles.

± = no apparent reaction occurs during stirring but upon close inspection the mixture is opaque and contains finely dispersed particles.

1+ = a definite coagulation occurs during stirring with little or no tendency for the mass to adhere to the stick; on continued stirring, separation into a milky whey and well defined particles takes place.

*Presented at the CSVMA Convention, San Diego, June 21-23, 1954.

[1]Whiteside, W. H.: Observations on a New Test for the Presence of Mastitis in Milk, *Canadian Pub. Health J.*, 30, (1939), 44.

[2]Murphy, J. M., and Hanson, J. J.: A Modified Whiteside Test for Detection of Chronic Bovine Mastitis, *Cornell Vet.*, 31, (1941), 47.

[3]Murphy, J. M.: Further Observations on the Modified Whiteside Test for the Detection of Chronic Bovine Mastitis, *Cornell Vet.*, 32, (1942), 439.

[4]Petersen, W. E., Grimmell, J. F., and Schipper, I. A.: Factors Involved in the Whiteside Reaction, *J. Dairy Science*, 33 (1950), 384, Abst., p. 37.

†40 grams of chemically pure (C.P.) sodium hydroxide pellets in distilled H_2O q.s. 1,000 cc. Avoid use of glass-stoppered bottle.

2+ = the mixture coagulates almost as soon as stirring is started; the coagulum follows the movement of the stick and finally when separation occurs the particulate matter is arranged in thread-like whorls in a clear whey.

3+ = a tenacious coagulum forms immediately and adheres to the stick. Upon continued stirring the mass separates into a clear whey and thready, clumped opaque material.

4+ = a tenacious coagulum with little or no tendency to break down into whey and particulate matter.

In conducting the Whiteside test on milk prepared for Hotis test, the presence of the brom-cresol purple indicator caused the milk to become dark blue upon addition of the sodium hydroxide. In such milks, Whiteside reactions of 2+ or greater were readily apparent but weaker reactions were masked by the blue color. This difficulty was overcome by letting the milks dry on the glass plate before attempting to record the reactions. It was found that the blue background provided excellent contrast to the particulate material when the glass plate was viewed by holding it up to the window or other source of light. The reactions were so easy to read that thereafter all Whiteside tests, whether conducted on plain milk or Hotis test milk, were allowed to dry before reading the results. This proved to be a convenient procedure for the following reasons: (1) it was time-saving to prepare all tests at one time and read the results when the milks were dry; (2) the minor reactions were more readily detected in the dry than in the wet state; (3) the intensities of the reactions could be more easily compared, and (4) the plate containing the dried Whiteside reactions could be retained indefinitely to show to the dairyman, milkers or other interested persons.

Films for cell counts were prepared by spreading 0.01 cc of milk over one square centimeter of slide area and allowing the films to dry thoroughly. Staining was accomplished by fixing the films in acetone-free methyl alcohol for at least 2 minutes, immersing in Wright's stain for from 2 to 5 minutes, transferring to phosphate buffer containing about 10 per cent Wright's stain for from 2 to 5 minutes, rinsing carefully and briefly in tap water and allowing the films to air dry. The oil immersion objective was used and the area of the field in square centimeters was determined by use of a stage micrometer. The

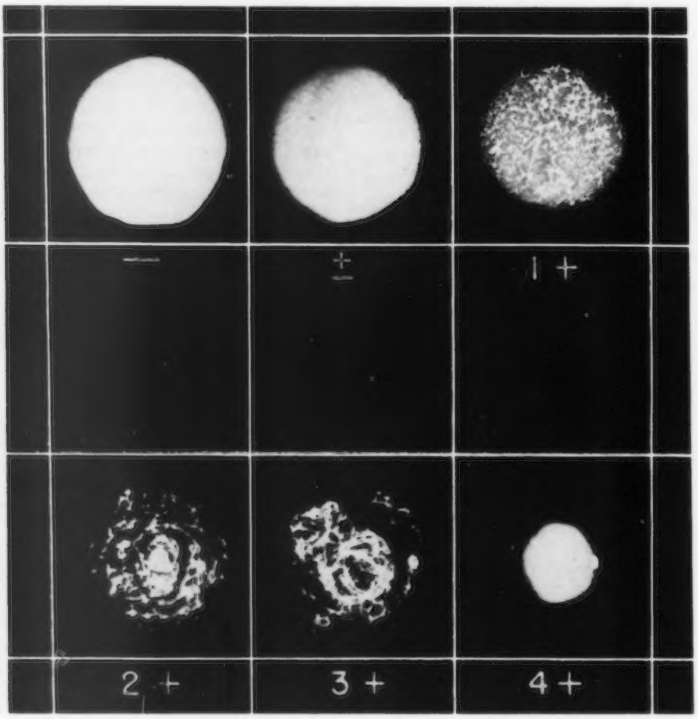

Plate I. Section of a glass plate marked off in one inch squares and presenting the six degrees of Whiteside reactions. The finely dispersed particles of the ± reaction and a narrow ring of clear whey at the periphery of the 4+ reaction fail to show in this photograph.

number of cells in 25 microscopic fields was determined when making cell counts and the number of cells / cc of milk was then obtained by use of the proper factor. Total cell counts as well as differential cell counts were made in order to compare the Whiteside reaction with predominant cell types.

Results and Discussion

A summarization of the results of total counts and polymorphonuclear leukocyte counts on milks exhibiting the various Whiteside reactions is presented in Table 1. These data suggest that a PMN leukocyte count of 200,000 cells or more / cc of milk accompanies the positive reactions. By adding the percentages listed in the last two columns of Table 1, it is seen that that level of PMN leukocytes was found in 3 per cent of milks of negative reaction, in 33 per cent of milks of ± reaction, in 87 per cent of milks of 1+ reaction, and in 98 per cent of milks showing 2+ or greater Whiteside reactions.

Since a small percentage of Whiteside negative milks had high PMN leukocyte counts and a larger but still relatively small percentage of distinctly positive milks had low PMN leukocyte counts, these observations lend support to the contention of Petersen, et. al.,[4] that the leukocytes *per se* are not responsible for the reaction, but that some other product of inflammation such as fibrin may be involved. It is apparent, however, that the Whiteside phenomenon is a measure of the presence of the products of inflammation in the milk.

Experience with the test on nearly 5,000 milk samples has shown that foremilk from individual mammary quarters is the most suitable milk for application of the Whiteside test. However, mixed foremilk from the four glands of the udder is also suitable for there is little or no reduction in intensity of the reaction as a result of dilution with milk from normal quarters. In fact, Whiteside-positive milk could be diluted as much as ten times with normal milk without diluting-out the reaction completely. Therefore, it is considered that in the initial collection of samples from a herd, milk may be taken from the bucket, in much the same way as is done in the testing for butterfat, and prove satisfactory for detection of cows having damaged mammary glands. Cows producing Whiteside-positive milk should then be followed up with tests on milk collected from the individual quarters to demonstrate the glands involved and the agent responsible for the abnormal milk.

TABLE I

Comparison of the total cell count and polymorphonuclear leukocyte cell count per cc of milk with the Whiteside reactions of 4,798 milk samples.

Whiteside Reaction	Number of Samples	Total cell count range/cc milk	%	Number of polymorphonuclear leukocytes per cc milk and percentage of total samples			
				0–100,000	100,000–200,000	200,000–500,000	over 500,000
–	2,870	0–100,000	70.11	70.11			
		100,000–200,000	14.65	14.49	0.16		
		200,000–500,000	11.02	6.79	2.94	1.29	
		over 500,000	4.22	0.91	1.50	1.66	0.15
±	562	0–100,000	18.21	18.21			
		100,000–200,000	11.20	10.64	0.56		
		200,000–500,000	35.85	13.45	16.53	5.87	
		Over 500,000	34.74	4.76	2.80	17.37	9.81
1+	827	0–100,000	0.64	0.64			
		100,000–200,000	0.64	0.64			
		200,000–500,000	13.58	2.20	5.87	5.51	
		Over 500,000	85.14	0.55	3.12	34.86	46.61
2+ or greater	539	200,000–500,000	0.3		0.3		
		Over 500,000	99.70		1.2	5.99	92.51

When bucket milk samples are employed, the significance of ± reactions may be of some concern. In attempting to improve the test on such milks, it has recently been our practice to repeat the procedure on the milks of ± reaction but using instead of one drop, two drops of NaOH. Observations, in general showed that with milks having PMN leukocyte counts of 200,000 cells or more / cc, the reaction advanced to 1+ when the two drops of NaOH were used whereas with milks having lower PMN leukocyte counts the reaction either cleared up, that is became negative, or remained ±.

Other noticeable features about the Whiteside test are as follows: (1) false reactions may occur in milk collected during the first week of lactation or in samples from dry cows especially if the material has become serous; (2) milk may be held in the refrigerator up to 48 hours without seriously altering the intensity of the reaction but after that a gradual diminution in the phenomenon takes place; (3) milk that is to be shipped to a distant laboratory for test may be preserved with boric acid in final concentration of 0.5 per cent but a decline in intensity of reaction may occur if the samples are more than two days old upon arrival; (4) preserved samples should be refrigerated upon arrival at the laboratory if the standard procedure of one drop of NaOH to five drops of milk is to be used otherwise two drops of NaOH should be employed in the test; (5) not all preservatives are suitable, for the addition of either formalin or mercuric chloride destroys the phenomenon, and (6) mastitic glands treated by intramammary injection of therapeutic agents will continue to secrete Whiteside-positive milk as long as the tissue damage persists even though the specific pathogen has been destroyed.

Summary

Milk containing the products of inflammation may be detected by the simple procedure of vigorously stirring for 20 seconds on a glass plate, a mixture of five drops of cold milk and one drop of normal sodium hydroxide solution. Positive reactions consist of the formation of flakes, threads or clumps of opaque material in a whitish to clear whey. The phenomenon is called the Whiteside reaction or the Whiteside test after the name of the investigator who first called attention to the phenomenon and its possible use in the detection of mastitis.

Observations on about 5,000 milk samples obtained from six dairy herds reveal that a high percentage of Whiteside-positive milks have polymorphonuclear leukocyte counts in excess of 200,000 per cubic centimeter of milk.

The reaction is not readily diluted-out by the addition of normal milk to Whiteside-positive milk. Therefore, the Whiteside test is suitable for application to the mixed milk of the entire udder collected from the milk pail in much the same way as is now done for the purpose of testing individual cows for butterfat production.

The Whiteside test may find its greatest usefulness as a screening procedure for selecting the cows in a herd that currently have damaged mammary glands. Such a test should be followed by collection of foremilk from the individual quarters of the reacting cows to detect the gland or glands producing the abnormal milk. If the foremilk is collected with aseptic technic, Hotis test and other bacteriologic procedures may be employed to identify the specific pathogen involved.

Through frequent testing of a herd by Whiteside test on bucket samples of milk, submitted by the owner to the veterinarian or testing laboratory, the progress of mastitis control can be followed easily and inexpensively.

Mr. and Mrs. Carl Rumold, of Sausalito, were visitors at the convention on Monday and Tuesday, en route for a vacation in Mexico.

While Rumold is not a veterinarian, he probably knows more of the terminology used in veterinary medicine than the layman. He should, for he is foreman at the Recorder Printing and Publishing Company, the organization which prints "The California Veterinarian," and across his desk passes all of the editorial and advertising copy which goes into each issue.

Most distant visitor was Dr. Antonio Ugliaioro, a veterinarian from Nicosia, Sicily, Italy. He was an interested spectator for one day and met a number of officers and members of the association.

Men's Golf Tournament Winners

By way of entertainment at the recent convention, a Men's Golf Tournament was held on the morning of June 21st. CSVMA winners were as follows: First low gross, Dr. H. M. Stanton; second low gross, Dr. R. R. Smith. First low net, Dr. J. L. Geierman, second low net, Dr. John Craige.

Commercial winners included Jack Smith, Fort Dodge Laboratories, first low gross, and John Duncan, first low net.

The blind bogey was won by Dr. Jewett.

Sixteen laboratories and pharmaceutical houses were contributors to the fund for trophies.

Deep-Sea Fisherman

Dr. B. J. Gray, Fort Dodge Laboratories, came off with highest honors during the deep-sea fishing excursion to the Coronado Islands, held during the wee small hours of June 21st. Dr. Gray managed to land a 16 pound yellowtail. He also pocketed $14 prize money.

Newspaper, Radio and Television Coverage at the Convention

Excellent publicity was obtained before, during and after the 66th Annual Convention in San Diego.

More than 150 California newspapers were furnished with advance stories several weeks before the meeting; special stories went to newspapers in the cities where speakers resided; the *San Diego Union* and *Tribune* were given special stories, including articles on women's activities.

During the convention continuous contact was made with the *San Diego Union* and *Tribune*, and both papers sent reporters and photographers to the convention. Several stories were picked up by the Associated Press and given wide coverage.

Dr. Charles H. Reid ably handled radio and TV, arranging for interviews in advance of the convention. These interviews were: June 21st —Dr. B. T. Simms, Station KFSD. Dr. Simms spoke on the importance of the veterinarian from public health and infectious disease control standpoint.

June 21st—Dr. Paul DeLay, Station KFSD. Dr. DeLay spoke on the vast scope of the veterinarian's work; schools available; academic training, etc.

June 21st—Dr. Simms interviewed by Harold Kean on KFMB-TV.

June 22d—Dr. Jasper, University of California, Davis; Dean Armistead, Texas A & M; General McCallam, president of AVMA, and Dr. Simms were all interviewed by Howard Keddie, Station KCBQ.

Subjects covered were the veterinarian and the increase of production to keep pace with the population, infectious disease control, meat and milk inspection, schools, Army veterinarians and their activities, etc.

The CSVMA is grateful to the press, radio and television for the generous coverage given our annual meeting.

Exhibitors' Prize Contest

The popular exhibitors' prize contest at the 66th Annual Convention saw the following win cash awards:

Mrs. Louis M. Kitzman, Dr. Floyd W. Koebel, Mrs. F. W. Koebel, Evelyn Ozanian, Ada Pike, Dr. W. W. Putney, Mrs. O. W. Schalm, Warren G. Walker, Mrs. F. P. Wilcox, and Janet M. Willetts.

To qualify for the awards, signatures from each exhibitor were obtained.

The drawing was made by Mrs. Paul DeLay during the President's Banquet and Dinner Dance, June 22d.

Exhibitors' Luncheon Well Attended

A group of exhibitors at the 66th Annual Convention in San Diego attended a luncheon in the Concord Room of the U. S. Grant Hotel on Wednesday, June 23rd, tendered by president Zontine, past-president DeLay and Charles S. Travers, executive secretary. The president and past-president made opening remarks, then left to attend clinical demonstration at the Zoo.

The affair was a success, not only from the culinary point of view, but from the helpful exchange of ideas regarding future meetings.

It was the consensus of opinion expressed by the representatives present that attendance by delegates at the exhibits was gratifying. All agreed that at future conventions it would be desirable for all exhibitors to be in one room.

Several suggestions for the popular "Exhibitors Prize Contest" were made, which will be taken under consideration for 1955.

According to one exhibitor "it is not too early right now to urge members to plan in advance for the June, 1955, meeting." With June a popular vacation month, every effort should be made, the exhibitor pointed out, to interest the Veterinarian to combine his annual vacation with the Association's convention.

C. H. James of Lederle Laboratories offered a toast to Secretary Travers for his untiring efforts at the convention, and throughout the entire year. The group responded with comments of appreciation.

Peebles Dog-Kit Now Called Dog Milk

Peebles Dog-Kit Milk Formula, in its new condensed form, is now appearing under a new streamlined can label reading Peebles Dog Milk Formula.

This high-fat, low-lactose formula, fortified with vitamins and minerals, was designed exclusively for canines and other carnivores by Western Condensing Company, nation's largest producer of animal feeds derived from milk.

Now the Western Condensing research laboratories have succeeded in stabilizing the identical formula in condensed liquid form, which by the mere addition of an equal part of water will give a close approximation of pure natural dog milk.

Veterinarians are invited to write for free literature giving complete guaranteed formula for Peebles Dog Milk and comparisons with actual bitch's milk and with cow's milk. Address requests to Western Condensing Company, Box 621-G, Petaluma, California.

Sterile Surgical Procedure*

C. EDWIN HOFMANN, D.V.M.
Tulsa, Oklahoma

Aseptic surgery or sterile surgical technic is probably one of the most important single procedures in the practice of small-animal medicine, and yet it is probably neglected or participated in half-heartedly by too many of us. Some of the reasons for this are; if end results of surgery are good they are just taken for granted; if end results are bad they are often either ignored or immediately forgotten; we often overlook the presence of swelling, drainage, and slow healing as just one of those things that happen. In most cases these symptoms are obvious evidence of contamination of the site of surgical intervention.

Another excuse for not practicing aseptic surgery is lack of time for preparation. This is probably more imaginary than real. Personally, I am convinced that less time is consumed in preparation and execution of sterile technic than is involved in the extra aftercare and headaches that follow improper technic. Probably one of the most pronounced arguments by the average practitioner against aseptic procedures is that he does not have the equipment or personnel necessary for the preparation. It is our purpose in this discussion to present a practical, economical, convenient and effective method that has proved of value in our practice. It does not require equipment or time or ability that is not within the scope of any practitioner.

We believe that it is essential to have a room equipped for surgery only. I grant that many practices are successful without this separate room, but it is difficult to conceive of aseptic procedures being done in the same room that is used for examinations, grooming, drainage of abscesses, etc. The room need not be large or elaborate, and can easily be a part of any hospital no matter how small the practice.

The less equipment in this room other than that used expressly for surgery, the better it will serve. Too often the surgery is cluttered up with everything that cannot be stored somewhere else. A room that is easy to clean and maintain is important. The floor should be non-porous for ease of cleaning. A low-cost floor of linoleum or asphalt or plastic tile is very good. Of course terazza or ceramic tile is much better and more durable, but the initial cost is considerably greater. The walls can be of any easily cleaned and maintained material. Surfaces that can tolerate repeated washings and disinfecting are good.

Although not connected with asepsis, good lighting of the room and good operating lights greatly enhance favorable outcome by making the surgical exercise easier to do. A place for preparation of the patient can be in some area that is also used for other purposes, e.g. our preparation area is in the surgery ward. This may not be exactly orthodox, but we find it is very satisfactory. Incidentally, it does cause our surgery ward to be maintained in a very clean manner at all times. Our preparation area and the surgery are connected directly by one door. We like this arrangement because a patient can be prepared, moved to the surgery, and returned to the ward all in a space of a few feet. The preparation room should have a sink for scrubbing and an adequate table for preparing the patient.

We would like to discuss preparation of the patient. This may be elementary but a quick review won't hurt us, I'm sure. (1) Bathe 24 hours before radical surgery if possible. This is not always necessary, and in some conditions would be contraindicated. (2) Clip the operative area rather than shave to avoid erythema and primary incisions. Clip an adequate area in case the procedure may require more space than anticipated. (3) Scrub the site thoroughly—detergents are best—using gauze or cotton pads instead of a brush, to avoid irritation of the skin. (4) Wipe the area with ether to remove fat-soluble substances, cleanse with alcohol, paint with antiseptic. (5) Remove to surgery and apply final application of antiseptic. Keep attendants away from the subject after preparation is complete. They mean well but so often are careless in their efforts to be helpful.

Instruments should be either autoclaved or boiled. Cold sterilization has too many variable factors to be really dependable. Sterilization of towels, gowns, gloves, sponges, etc., can be done in several ways. The method we prefer was, we believe, started by a layman working for a veterinarian. He reasoned that if cloth or paper-wrapped packs could be properly sterilized, why not use a more durable container that could be stored more easily? He selected wide-mouth fruit jars, which are not contaminated by moisture and dust and can be stored, probably indefinitely. The jars contain anything you want to put in them. We process these jars at 250 degrees for 20 to 30 minutes, using a common pressure cooker since we do not have a large autoclave. We have found this amount of heat and time to be adequate. It is important that the lids of the jars be very loose during the processing so that the steam can penetrate the interior of the jar. When the time is completed, the steam is exhausted as rapidly as possible to dry out the pack by sudden reduction in pressure. The lids are tightened down immediately afterward, to effect a tight seal. (A demonstration followed.)

*Presented at the CSVMA Convention, San Diego, June 21-23, 1954.

REPORTS OF COMMITTEES

Program Committee

The Program Committee has completed arrangements for speakers and participants for the two regularly scheduled meetings of the Association during the fiscal year. The programs as printed for the two meetings will serve as the detailed report of the committee for the year.

Much material is available for veterinary meetings such as we are attending, and a list of available speakers and subject matter now known will be handed on to the subsequent Program Committee.

This Committee assignment was a very happy one, and I want to take this opportunity to thank those of you who so generously gave assistance when asked. No assignment is arduous when everyone is interested in seeing that the end is accomplished with dispatch. I have had the privilege of arranging programs for this association for several years, especially when we were meeting in San Luis Obispo, so I know what kind of a job it can be. This year was one of the highlights of cooperative effort. The programs were arranged with dispatch with the assistance of all concerned.

Thanks for the privilege of serving in this capacity.

A. M. McCapes, *Chairman.*
A. Mack Scott.
Frank Wayland.
C. B. Griffiths.
J. F. Christensen.

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Legislative Committee

On June 25, 1953, Senate Bill No. 1754 was signed by Governor Warren. This bill now places the practicing veterinarian on the same plane as the physician, surgeon and dentist in regard to limitation of actions. A copy of the bill is herewith :

SENATE BILL

Introduced by Senator Donnelly

An act to amend Section 340 of the Code of Civil Procedure, relating to limitation of actions.

The people of the State of California do enact as follows:

Section 1. Section 340 of the Code of Civil Procedure is amended to read:

340. Within one year:

1. An action upon a statute for a penalty or forfeiture, when the action is given to an individual, or to an individual and the State, except when the statute imposing it prescribes a different limitation;

2. An action upon a statute, or upon an undertaking in a criminal action, for a forfeiture or penalty to the people of this State;

3. An action for libel, slander, assault, battery, false imprisonment, seduction of a person below the age of legal consent, or for injury to or for the death of one caused by the wrongful act or neglect of another, or by a depositor against a bank for the payment of a forged or raised check, or a check that bears a forged or unauthorized endorsement, or against any person who boards or feeds an animal or fowl or who engages in the practice of veterinary medicine as defined in Business and Professions Code Section 4826, for such person's neglect resulting in injury or death to an animal or fowl in the course of boarding or feeding such animal or fowl or in the course of the practice of veterinary medicine on such animal or fowl;

4. An action against a sheriff or other officer for the escape of a prisoner arrested or imprisoned on civil process;

5. An action against a municipal corporation for damages or injuries to property caused by a mob or riot;

6. An action against an officer to recover damages for the seizure of any property for a statutory forfeiture to the State, or for the detention of, or injury to property so seized, or for damages done to any person in making any such seizure.

Sec. 2. This amendment shall not be applicable to or anywise prejudice or affect any action heretofore commenced or now pending in any of the courts of this State.

Heretofore, there was no limit on actions against veterinarians. Now a veterinary practitioner can only be sued for malpractice for a period of one year following the completion of a case. This gives him the same right as the medical doctor to start collection procedures against a bad account or disgruntled client following the one year grace period, without fear of a countersuit for malpractice as was the case in the past.

This completes the report regarding our activities during 1952-1953. The committee was pleased to have had success with its efforts concerning positive legislation benefitting all veterinary practitioners.

During the past twelve months the chairman has sent out three letters of inquiry to members of the committee throughout the state, requesting information regarding problems relating to legislation. No replies recommending action were received. As you all know, this past fiscal year has not been a legislative year in Sacramento; hence there was no work to be done along this line.

The chairman received a letter just prior to our winter meeting at Davis from Dr. Vincent Jessup. Dr. Jessup described a situation which had arisen in the Los Angeles milk shed. He stated that pregnancy diagnoses and sterility work was being done by a layman and that other laymen involved in artificial insemination of dairy cattle were becoming interested in similar activities. He strongly suggested that some action be taken. A copy of his letter was forwarded to the Executive Committee of our association. The chairman of the Legislative Committee wrote the Executive Committee regarding the same problem and requesting a directive regarding action. The chairman

Executive Committee in session. Left to right: A. R. Inman, Charles S. Travers, W. J. Zontine, A. M. McCapes, Charles D. Stafford, A. Mack Scott and Paul D. DeLay. Not present was E. G. LeDonne.

suggested the solicitation of the aid of allied industries, i.e., dairy section of the Farm Bureau, Cattlemen's Association, etc.

The chairman received a letter from Mr. Travers informing him that the Executive Committee had directed Mr. Travers to proceed with the contacting of allied industries regarding the question. Later this year the chairman was contacted by Dr. Charles Ozanian concerning the same problem. Dr. Ozanian stated that he felt very strongly that some action should be taken.

It is our opinion that positive action should be taken immediately by next year's Legislative Committee regarding the above situation. We feel that it would be best if allied industries could be induced to initiate legislative action and our association aid them from the sidelines. This problem seems to be of prime importance to dairy cattle practitioners in the Los Angeles milk shed and would undoubtedly eventually affect large animal practitioners throughout the State.

The chairman has appreciated the opportunity to serve on the Legislative Committee for the past four years—the last three of which acting as chairman of the same. It seems only right that other members of our association should be given the opportunity to serve. Due to certain business and personal plans the writer feels he will be unable to serve this next year on the Legislative Committee.

It has been a sincere pleasure to work on this committee and it is earnestly hoped that we have attained some progress for the association.

Respectfully submitted,

R. L. COLLINSON, *Chairman.*

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Membership Committee

The Membership Committee is made up of the following members, Drs. Dick Tangeman, Harry Snelbaker, Fred Walker, Joe Ridgeway, Ed Taylor, and myself. It is the purpose of this committee to encourage and relegate membership into the CSVMA. It is also to assist the Secretary in encouraging delinquents to pay up and become active CSVMA members again.

Our committee has been in contact with all members delinquent in 1952. Since no response has been received from any of these delinquents, 17 will now be dropped from the association.

All 1953 delinquents have been contacted. 17 of these delinquents have paid up and 2 have resigned.

As to total membership in the CSVMA it now stands at 890. This past year 118 new members, including the new members from the senior class at Davis, which totaled 50, have been brought into the association.

This committee is made up of just a few men to spearhead an interest in joining the CSVMA—a job which every member should keep in mind and be on the alert to bring another veterinarian into our state organization.

A. MACK SCOTT, Chairman.
DICK TANGEMAN.
JOE RIDGEWAY.
FRED WALKER.
HARRY SNELBAKER.
ED TAYLOR.

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Resolutions Committee

Upon notification by the secretary of the above association, or others, concerning the passing of one of our colleagues, suitable resolutions were prepared and sent to the Secretary for transmission to the Executive Committee at their next meeting, and also to the bereaved families.

Following are the names of the deceased for whom resolutions were prepared:

Carl E. Wicktor ..... Los Angeles
H. E. Bergh ..... Suisun
Theodore J. Stover ..... Laguna Beach

William L. Brown ..... Fresno
O. H. Cripe ..... Eureka
E. D. Kennedy ..... Monrovia
Henry Torgersen ..... Mountain View
Ellis Peterson ..... Aptos
R. H. Schrecengost ..... Los Angeles

The committee respectfully recommends that as resolutions are transmitted to the secretary they should then be published in the next issue of THE CALIFORNIA VETERINARIAN.

CHARLES H. REID, D.V.M., *Chairman*
E. G. LEDONNE
E. C. JONES
J. E. STUART

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Mastitis Study Committee

The Mastitis Committee has continued to work together with dairy industry members during the past year. Three joint meetings were held for discussing topics related to mastitis control.

Member activity resulted in the addition of a full-time worker for Dr. Schalm's mastitis research program at the University of California. His present paper outlining merits of the Whiteside test as a tool for screening and survey work, and as a presumptive test in control programs illustrates the real benefits that can be derived from research funds intelligently administered.

Efforts toward increased support of research will be continued, emphasizing particularly the need for studying the role of management in the etiology and prevention of mammary inflammations.

Subcommittees born at our June 21st meeting are planning action intended (1) to acquaint dairymen with the means presently available, and the need for improving udder health in their herds, and (2) to avail for the profession assistance in diagnosis and study from regional laboratories. The former will utilize not only publications, the Extension Veterinarian Dr. McKay, and other extension service aids, but at the suggestion of Dr. Jessup will emphasize mutual advantages to milk processors who lend assistance through their field men. This is especially timely in view of the presently more-than-adequate supply of milk and the desire on the part of dairymen who have a market to produce milk of highest quality. The latter subcommittee will seek to make possible local demonstration herds, survey work, and assistance to local veterinarians in diagnosis in problem herds.

The interest and active participation of committee members is most gratifying. Also most appreciated is the unique and active help given us by Mr. Pellissier and other members from the California Farm Bureau Federation.

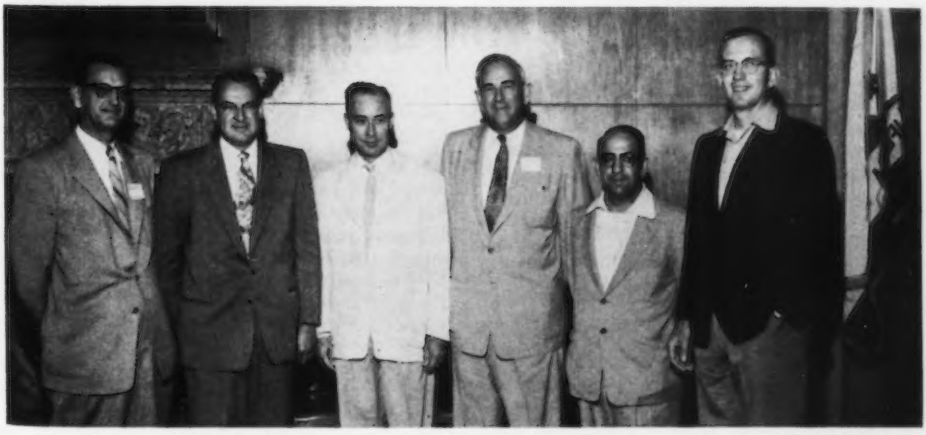
Respectfully submitted,

ROBERT ORMSBEE, *Chairman*

Animal Disease Control Committee

The Animal Disease Control Committee has for the past three years been attempting a survey of the morbidity and mortality reporting of animal diseases in the State of California. The reasons are obvious:

1. No data at the present time tells the actual cost to the livestock owner of dead and diseased animals let alone time, feed, labor, and material wasted.
2. Officials of civil defense are worried over the lack of a national morbidity and mortality report of animals. The lack of such a report when engaged in defense against bacterial warfare is a handicap that might not readily be overcome.
3. The Public Health Department, in order



Dr. F. P. Wilcox, Dr. O. W. Schalm, Dr. Robert Ormsbee, Mr. Frank L. Pellissier, Dr. C. H. Ozanian and Dr. R. V. Jessup, left to right above, attended the Mastitis Breakfast held at the U. S. Grant Hotel, Monday, June 21.

to determine the source of diseases, to plan disease prevention programs, and to know where research and control efforts should be concentrated, should have more information as to the location, prevalence and type of animal diseases that are transmissible to man.

4. The small animal practitioner is not without obligation in reporting disease of pets communicable to man and if the morbidity and mortality of some of the more fatal diseases of small animals were brought to the attention of the pet-loving public, it might be possible to divert attention and bank rolls from anti-vivisectionist and anti-rabies vaccination activities to research and prevention.

Fewer than three years ago a survey of morbidity and mortality of other states was made by this committee and we learned that twenty-five states require no report, twenty-one states have a reporting form and two states did not answer. The California system compared favorably with the best of the reporting states and has since been improved upon. Probably the biggest deficiency in all the state reporting forms is that the diseases listed tend to reflect the attitudes of the regulatory officials and the livestock industry as to what constitutes a disease of economic importance and fails to take into consideration the "bread and butter" diseases of the practitioner, i.e., milk fever, acetonemia, internal parasites, plant and chemical poisoning, foot rot, etc. It might be psychologically sound to include these "bread and butter" diseases of the practioner in the list of diseases he is by law compelled to report.

A sample quesionnaire sent to local associations two years ago did not result in enough returns to justify any course of action by this committee. It was surprising that *all* of the returns believed that small animal diseases should be reported routinely at definite intervals and some of the diseases listed were distemper, histoplasmosis, leptospirosis, infectious hepatitis, heart worms, mange, feline enteritis and one small animal practitioner would like to know the number of distemper vaccinations, number of breaks following vaccination, vaccine used and the development of nervous symptoms observed in treated cases.

The U. S. Livestock Sanitary Association has endorsed and instituted a National Reporting Program consisting of monthly tabulations for each of the forty-eight states compiled for specific diseases. The regulatory officials of each state will send their respective reports to Dr. Ralph Hendershott, Trenton, New Jersey. Dr. Hendershott will in turn send out a national report to each state. The chairman of this committee was our own late past-president, Dr. Wicktor, and the list, too lengthy for reading, consists of reporting by telephone or wire to the state regulatory officials, the suspected occurrence of any of the diseasees of explosive nature considered of national importance and weekly report on the occurrence of disease more endemic in nature.

It is interesting that in the 1953 September report for Ohio, eighteen different cattle diseases were reported, seventeen swine diseases, nine dog diseases, three sheep diseases, ten poultry diseases, three cat diseases, and one horse disease. There were 593 reports forwarded of which 355 or roughly 44 per cent were negative reports. It would appear that Ohio veterinarians are interested in the progress of that phase of their profession. The "bread and butter" diseases mentioned before listed under "other" show the trend of thought of the practitioner as to what should be listed in veterinary morbidity reports. Among these diseases were such as tetanus, shipping fever, keratitis, foot rot, forage and chemical poisoning. In the small animal field were reports such as bronchitis, distemper, encephalitis, hard pad, ringworm, feline leptospirosis, distemper and panleucepenia.

The reporting of animal diseases goes deeper than the practitioner. It means the education and stimulation of the veterinary student, which Dr. Jasper tells me is being emphasized at our own University of California. It means the education of the extension service and of the livestock owner to insist upon the reporting of animal diseases by his veterinarian for the protection of his neighbor and community, realising that it is to the economic advantage of all to point the direction for new investigations in research, to institute control measures promptly with the resultant saving of time, manpower and money. It is realised that the road to an all inclusive program of veterinary morbidity and mortality reporting is rough and rocky, but with the cooperation of the practicing veterinarian and the State Department of Public Health, the local county and state veterinary services, the University of California and the livestock industry itself, the wooden, iron-rimmed wheels of the wagons with which we have been traversing this path, can be changed to the white-walled, over-sized, balloon tires of the veterinarian of the future.

Dr. Karl F. Meyer, just a few months ago at the Bay Counties meeting in San Francisco, stated that it is not possible to prevent disease, but it is possible and we must prevent infection. A complete and comprehensive veterinary morbidity and mortality reporting system by the best veterinarians, in the best state, in the best country in the world will help us to reach that goal.

C. Edward Taylor, *Chairman.*
Mervyn C. Mahoney.
A. L. Tietze.
E. H. Houchin.
Melvin P. Roberts.
I. N. Bohlender.

Clinical Aspects of Psittacosis*

LAWRENCE MINSKY, D.V.M.
Practicing Veterinarian, San Gabriel, California

Psittacosis is an active or latent infection of psittacine birds, caused by a viral agent classed with the lymphogranuloma venereum group. The same condition in birds not of the psittacine group is referred to as ornithosis. A disease caused by agents indistinguishable morphologically and biologically from those of psittacosis and ornithosis is becoming more commonly identified in mammals.

In 1879, a condition now considered to have been psittacosis was described by Ritter in Switzerland. The serious outbreak of 1892 in Paris made the disease well known. It was a severe pneumonia. Nocard in 1892 isolated a gram-negative motile rod from parrots which had died during an importation from Buenos Aires. He found them to be pathogenic for parrots, fowls, mice and guinea pigs both by inoculation and feeding. However, subsequent investigators were unable to support his work.

Perhaps the greatest outbreak and dissemination of the disease occurred during 1929 and 1930. A shipment of some 5,000 psittacine birds from Brazil to Argentina was the focal point. A severe infection developed among the birds and in order to sell as many as possible, great haste was made to dispose of the survivors. The dispersal of these birds led to infections in at least twelve countries and produced approximately 750 to 800 human cases.

Research by Meyer and Eddie in 1931 and 1932 revealed a wide distribution of latent infection in local breeding establishments throughout California. Others found the same to be true in Germany, Austria, France, Holland, England and Canada.

Over 70 species of birds are affected. Parrots, parrakeets and lovebirds are apparently the most common psittacine reservoirs. However, canaries, finches, pigeons and doves are also important sources of infection. Pigeons may be negative to the complement fixation test, but still infective to man. Apparently healthy or diseased mammals, mice, cats, sheep and opossum have been found to harbor an organism indistinguishable from that of psittacosis. Over 30 species have been proved to have spontaneous infections. In cattle, a condition called "sporadic bovine encephalomyelitis" is an example of mammalian infection caused by a virus whose physical and serological characteristics indicate a close relation to the psittacosis—lymphogranuloma-venereum group. It is primarily a disease of mesenchymal tissue, but due to widespread tissue invasion, encephalomyelitis develops. Feline pneumonitis, a condition known to most of us and discussed in the literature is also caused by a viral agent belonging to this group.

Symptoms of psittacosis are not characteristic enough to warrant a diagnosis based on clinical examination. An autopsy and laboratory examination are necessary to prove the presence of psittacosis. Equally important is the fact that an apparently healthy bird may harbor the organism and be a vector, and in fact might later develop an acute fatal form of the disease itself under pressure of poor environmental circumstances.

General symptoms which may be observed are listlessnesss, inappetence, rough feathering, moulting, shivering and weakness. A greenish watery diarrhea, sometimes blood-tinged, usually occurs. The bird becomes thin, and death may be preceded by convulsions and paralysis. This cycle may take a few days to a few weeks. It may culminate in death or slow recovery. The incubation time is 7 to 31 days.

On autopsy, mucous nasal plugs may be present. The skin may be covered with an erythematous rash. Air sac involvements may be seen, with a deposition of exudate. The liver capsule may be similarly affected. The liver is always swollen. Frequently the spleen is enlarged and the kidneys swollen, soft and friable. Elemental bodies can be seen in smears from pericardial or peritoneal exudate, or the organs. The lungs are seldom affected.

The diagnosis, as has been indicated, is dependent almost entirely upon post-mortem findings and upon laboratory test work. The chief laboratory tests employed are mouse inoculation and the complement fixation procedure. Intranasal inoculation of mice results in typical lesions in the lungs. For a detailed description of these methods, refer to Meyer's classic on psittacosis, found in *Diseases of Poultry*, edited by Biester and Schwarte and printed by the Iowa State College Press.

Birds acquire the infection mainly by ingestion and to some extent by inhalation. It is no doubt true that in some instances the infection has been spread by the sale of infected feed which had become contaminated in a pet shop where diseased birds were held. The chief modes of transmission from birds to man are indirectly by air, direct contact with sick or dead birds (or their droppings or feathers) and through bite wounds. Children have less susceptibility than adults.

Treatment by antibiotics in birds is not too practical. Parrakeets treated with injections of antibiotics have apparently been cured. Placing the antibiotic in the water failed to eradicate the infection, according to work done by Meyer and Eddie. Control, from the breeding standpoint, seems to be dependent upon maintaining birds free of the infection by strict isolation.

*Presented at the CSVMA Convention, San Diego, June 21-23, 1954.

Chinchilla Practice*

DR. MARK B. LINDSEY

Practicing Veterinarian, Santa Ana, California

In order to cover the more common diseases, surgery, and husbandry, I must refrain from details on any one subject and tell generally about what is most common in our practice.

First of all, one must be adept in handling the patient. Ask the owner to place the animal on the examination table. For general examination, hold the animal by his tail with your left hand. Then with the forefinger and second finger of the right hand placed on either side of the head, hold the body with the thumb, third and fourth fingers. You may thus examine most parts of the body and still prevent the animal from biting. For pregnancy examinations, hold the tail with the left hand, allowing the thumb and forefinger to slip through the rear legs to the abdomen for gentle palpation. With gentle pressure when the animal relaxes, after a little practice you can determine pregnancy fairly accurately from 30 days on. It is well to know how to determine sex and when females are open or closed; some owners are unable to do so. (Males and females were available for examination.)

For giving injections, hold the tail between the thumb and forefinger, while the remaining fingers slip into the flank and extend the right rear leg. The injection can then be made in the rear of the musclar part of the extended leg. Intraperitoneal injection can be made by elevating the rear part of the animal slightly, allowing the viscera to fall slightly forward. Injection is made through the right flank.

Preoral medication is usually done with an eyedropper. Grasp the nape of the neck with the left hand with one ear between the thumb and forefinger and the other between the next fingers. Pick up the animal with its feet against your chest, and with the right hand drop the medicine on the muzzle. If the dropper is put into the mouth it should be placed back of the incisors so that it cannot be nipped off.

For dental, eye, or ear work, wrap the animal snugly in bandages, leaving the head free. I use a small two-pieced carboard box with a head stock hole about the size of a half dollar. This box is held together with rubber bands, and the head is accessible. This is better than wrapping. Highly excitable animals should be given demerol, ⅛ cc for the average 16 oz. animal, subcutaneously before being placed in the box. The same dose or less of nembutal is also satisfactory.

Bite wounds are very common, especially during the mating season. They should be thoroughly cleaned, removing all hair both from the edges and the inside of the wound. After application of a mild antiseptic, give a dose of penicillin, 75,000 units for a 16-ounce animal.

Mastitis occurs commonly about a week after littering, especially with large litters and too little milk. The babies' teeth should be clipped or filed to prevent further injury to the breasts, and supplementary feeding is suggested. Penicillin is advisable, since many develop septicemia and die if not treated in time. Then use any mammary ointment, rubbing in well, and steam with hot packs, Excess ointment should be wiped off with alcohol to prevent intestinal disturbances or conjunctivitis in the babies.

Eye infections are very common and have many causes. Your favorite combination of antibiotics and sulfa eye ointments will usually work very nicely. For infections and epidemics, especially in babies, which average antibiotics will not stop, systemic injections of penicillin and Winthrop's neoprontosil, equal parts injected subcutaneously around the conjunctival sac, will give good results. Many of the eye infections in babies have been found to be caused by *Pseudomonas aeruginosa*. In these cases it is advisable to recommend vaccination as well as supportive treatment for those infected. Large swellings in the medial canthus of the eye are abscesses of the tear duct. Gentle pressure may expel the pus and fluid; otherwise they are lanced. Lilly's thizodrine is good for watering eyes to relieve stopped up tear ducts, one drop daily for three days, skip three days, and repeat.

The common symptom of ear infection is holding the head to one side, and suppuration with drainage. The causative organisms are mostly strep, staph, and pseudomonas. After cleaning the canal to remove wax, etc., apply your favorite ear remedy. Infections of the middle ear, showing loss of equilibrium, requires systemic treatment. We have found that intramuscular injections of ¼ cc each penicillin and neoprontosil, daily for three to five days, gives good results if started early enough (or ⅛ cc combiotic with ¼ cc neoprontosil). Also give thiamin. Some veterinarians have reported fair results from trephining the bulla ossa for relief of pressure.

The Woods lamp is useful in diagnosing the occasional fungus infections. We have found Pitman-Moore's cerbinol very effective, applied twice weekly. We suggest a tonic containing the essential fatty acids, added to the diet.

Cysts of the multiceps tapeworm are found in the musculature, especially around the neck, jaws, and hips. Easily diagnosed by palpation, they vary in size from a hickory nut

(Continued on page 40)

*Condensed from a presentation before the CSVMA Convention, San Diego, June 21-23, 1954.

Bureau of Livestock Disease Control

H. P. BONNIKSON, D.V.M.

On March 19, 1954, the Vesicular Exanthema Quarantine Regulation became effective. This regulation is designed to suppress vesicular exanthema in California, aiming at eventual eradication of the disease.

This new vesicular exanthema regulation establishes a non-quarantined district located in 21 northern counties and a quarantined district for the remainder of the state. The non-quarantined area consists of all counties north of and including Mendocino, Lake, Yolo, Sutter, Placer and El Dorado.

The regulation provides that all swine on ranches where raw garbage is being fed must be placed under hold order and not permitted to be moved unless accompanied by an official permit. Swine that are fed cooked garbage for 30 days may be released. Garbage that has been heated to boiling (usually 212° F. sea level) for 30 minutes, is considered to be cooked satisfactorily. Swine, or unprocessed swine products, originating in the quarantined area are not permitted to be moved from this area to the free area.

On March 19th the federal quarantine was released from the 21 northern counties of the state. This permits swine producers and processing plants under federal supervision in this section of the state, with the exception of swine under hold order, to market their swine or swine products in other states subject to the importation requirements of the state of destination.

On May 14th, the State-wide Vesicular Exanthema Control Committee adopted a resolution requesting that the remainder of the state be declared a non-quarantined area by or before February 14, 1955. Hearings are to be held in various parts of the state to determine the advisability of this action.

Cattle Scab

Early this year, cattle scabies was found for the first time in California since December, 1948. The outbreaks occurred in the southern part of the state originating from infested cattle imported from Colorado and Arizona. The psoroptic, or common scab mite, was found to be the cause.

Prompt eradication measures were immediately established, including quarantining, dipping of all infested and exposed cattle and inspecting of all cattle in feed lots or on pasture that originated from areas in which the disease was found to exist. An emergency regulation was adopted to restrict cattle imported from states known to have cattle scabies. On March 2nd, the disease was considered to be eradicated, following the final dipping of the last known infested and exposed cattle and on June 1st, the cattle scabies regulation was revoked.

Livestock Diseases Reported

H. P. BONNIKSON, D.V.M.

Tabulation of diseases reported to the State Bureau of Livestock Disease Control during the period January to April, inclusive, 1954; also a summary of the reports of the previous eight months.

	Jan.-April incl., 1954			May-Dec. incl., 1953 (Previous 8 Months)		
	North	Central	South	North	Central	South
Actinomycosis		1		2	3	1
Anaplasmosis	29	6	4	44	29	28
Anthrax, cattle		4	1		9	
Blackleg	1			1		
Bluetongue, sheep				44	48	6
Bovine bac. hemoglobinuria	4		3	9	4	1
Bovine trichomoniasis	1					
Caseous lymphadenitis				1		
Chorioptic scab, cattle					1	
Coccidioidal granuloma					9	8
Coccidiosis, cattle	5	5		5	11	
sheep	6	1		11	1	
goats				1		1
Contagious ecthyma, sheep				7		
goats					2	
Cysticercus bovis	8	21	40	21	42	120
Cysticercus cellulosa					1	
Encephalitis, cattle	4			4		
Equine encephalomyelitis	1	3	1	11	13	4
Foot rot, cattle				3	1	
sheep	5			1		
Hog cholera	4	3	5	5	9	11
Inf. atrophic rhinitis	1	1			2	
Johne's Disease, cattle	2	2		2	1	
sheep				1		
Leptospirosis, cattle	8	8	2	8	24	5
swine			1	2	1	
Listerellosis, cattle			3	1		
sheep					1	
Malignant edema	2	12	8	9	14	6
Malignant head catarrh				2		
Mycotic stomatitis, cattle		1		2	5	2
Paratyphoid, cattle		9	2		14	
swine					6	
Psoroptic scab, cattle			3			
Swine erysipelas		4	2		2	
Vesicular exanthema, native		20	4		11	21
imported					1	
Vibrio fetus, cattle	3	4	1	5	5	
sheep				1	3	

Chinchilla Practice

(Continued from page 38)

to a walnut. The cyst fluid may be aspirated and replaced with aqeous zephiran chloride, or removed surgically.

A chinchilla should deliver within an hour or two after labor begins; delay after that is cause for alarm. Cesarian section may sometimes be avoided by vaginal examination, manipulation and use of posterior pituitary extract. Vaginal examination can be made with the little finger (after thorough cleansing) with the animal in the standing position. Lengthy manipulations are inadvisable since the animal tires easily, and if delivery is not made immediately it is better to resort to cesarian section. We use ethyl chloride and ether equal parts, to induce anesthesia and straight ether to maintain it. The animal is strapped on its back, the abdomen is clipped with special care not to remove the nipples, and a midline incision is made. If the uterus cannot be incised near enough to the bifurcation to remove babies from both horns, two incisions are made. The uterus is closed with 000 or 0000 catgut, and the abdominal wall with the same size. Skin edges are closed with buried stitches. Johnson & Johnson Duo-liquid adhesive is used to apply a sterile gauze patch, and 75,000 to 100,000 units of penicillin are given intramuscularly. The incision heals in a day or two.

The most common fractures are of the radius and ulna or femur and tibia. The radius and ulna are easily reduced after anesthesia with 1/5 cc or less of pentobarbital sodium per pound body weight, injected intraperitoneally. A single or double applicator wrapped in cotton is used as a splint. Wrapped in plain gauze, it can be stuck to the leg with Duo-adhesive without danger of cutting off circulation, and will last for two to three weeks. On the rear legs we usually use intramedullary pinning with open reduction. An ordinary needle is threaded and the head inserted proximally; with the thread pull the sharp end down into the distal segment, and pull the thread out. This should be done as aseptically as possible, and with the use of pencillin, good results can be expected. In tibial fractures, supporting splints will prevent rotation.

Heat prostration is frequent in warm weather. Room temperature should be kept well under 80, preferably between 60 and 70 degrees. A satisfactory treatment is 1/16 to ⅛ cc epinephrine subcutaneously, or any of your favorite heart stimulants along with calcium gluconate (calphosan ⅛ to ¼ cc) along with placing in a cooler spot.

The occasional case of hypocalcemia is satisfactorily treated with calphosan and B complex if presented early enough.

The most common mouth difficulty is malocclusion; gingivitis and stomatitis are less frequent. The latter are treated with injections of B complex, nicotinamide and vitamin C, with daily applications of a good mouthwash such as 1.5 per cent peroxide. For malocclusion, a good mouth speculum is Cameron's nasal scope, using the ratchet head with split cone. It may take several visits to correct the abnormal teeth. D Diamond or emery discs are used to cut off incisors to the proper length. Small strabismus scissors and heavy cuticle forceps will snip spurs off molars, then smoothed with the diamond burr. A local hemostatic should be handy; a touch of Monsell's is good. Badly cut and ulcerated mouths should be swabbed daily; mineral and vitamin supplements are advised. Many mouth cases are not worth working on and the animal should be pelted; however the owner may be unwilling to lose a good producer.

The most common pneumonias respond to antibiotics and sulfa drugs, and a valuable supportive treatment is oxygen. Edema of the glottis manifests itself by profuse salivation and nasal mucus with labored breathing. The symptoms of choking are the same, and the mouth should be examined for foreign objects. Antihistamines with antibiotics and oxygen usually give good results and minute doses of atropine help to dry up secretions. Herd vaccination would prevent many of the pneumonias due to pasteurella, streptococcus, and pseudomonas organisms.

Intestinal disorders present our most difficult problems. Diets are not yet entirely satisfactory. Simple diarrhea will respond readily to creme of suxidine and creme of thalidine (Sharp and Dohme) incorporated in Lilly's cologel, equal parts or more of cologel. The dose is ½ to ¼ eyedropper as indicated. A small dose of combiotic, about ⅛ cc is also given. Chinchillas will not stand heavy peroral doses of streptomycin, arueomycin, or terramycin, for while they effectively control infection they also destroy useful flora. Laboratory diagnosis is useful when epidemics occur. In all enteritis cases it is well to recommend vaccine along with routine diarrhea medication. During outbreaks we recommend removing all hay and pellets, sterilization of water containers, and a diet of greens only. Our choice is Bermuda grass for three to five days. It is through our hays, either bean or alfalfa, and water that nearly all of our intestinal troubles originate.

The standard chinchilla diet consists of rabbit or chinchilla pellets; hay or bean straw or Timothy, and a supplement of bran, wheatgerm, oatmeal, powdered milk, pigeon mixed grain, mineral and vitamin compounds, etc.

Prolapses in babies can be successfully reduced after a sedative. Using sugar on the prolapse aids greatly in reduction. A high enema of mineral oil or cologel is given. Good sanitation and good nutrition will solve a lot of intestinal problems.

Frank L. Pellissier Named Honorary Member CSVMA

Frank L. Pellissier, Whittier, California, was unanimously elected an Honorary Member of the CSVMA at the annual convention, June 21-23, in San Diego.

His name was placed in nomination before the Executive Committee by Dr. C. H. Ozanian, Bellflower.

Born in 1896 in Los Angeles, Pellissier is general manager of the Pellissier Dairy Farms, Whittier, which he founded in 1930. His Bachelor of Science degree was obtained from the University of California in 1919, where he was a member of Psi Kappa Psi.

FRANK L. PELLISSIER

Before establishing his own dairy, he was business manager of the Los Angeles Creamery. His greatest achievement in the dairy field was the breeding and developing of "Pansco Hazel," Holstein champion lifetime cow, which merited blue ribbons at county fairs for advancing the Holstein breed to its present high level.

In addition to his dairy enterprise, Mr. Pellissier has acted as director of the California Dairy Institute; director of the California Dairy Council; vice-chairman of the Agricultural Committee of the Los Angeles County Chamber of Commerce, and Legislative Representative for the Dairy Department of the California Farm Bureau Federation for three sessions. In 1946 he was appointed by the Governor to the important California Livestock Sanitary Committee, whose activities were obvious in our semi-annual meetings.

He also served on the committee for Research of Brucellosis for the past 15 years. When lay-vaccinators for the Brucellosis program were being advocated by some factions of the livestock industry, it was Mr. Pellissier, with some of his associates of the Dairy Department, who vigorously opposed using unqualified personnel. Only those who attended the hearings can appreciate the efforts that he expended.

The work and effort that Mr. Pellissier is putting forth in the control and irradication of Mastitis at the present time is exemplified by the committee meetings he has called at the last five CSVMA meetings. The paper he presented at the general session of the CSVMA meeting on the importance of research and control measures throughout the state, has stimulated additional research and made veterinarians cognizant of dairy industry needs.

Mr. Pellissier was an ardent sponsor of the founding of the School of Veterinary Medicine, a task which took untiring effort while serving as the Legislative Representative of the Farm Bureau. His fruitful efforts are exemplified on the Davis campus.

"The interest and assistance that Mr. Pellissier has rendered to the veterinary profession; the understanding of the problems of the dairy industry in relation to veterinary medicine, and the many personal sacrifices he has made to attend meetings throughout the state for disease control and irradication make it a distinct pleasure for me to submit the name of Frank L. Pellissier, a true friend of the veterinary profession, to Honorary Membership in the California State Veterinary Medical Association," wrote Dr. Ozanian in his petition to the committee.

Col. Elmer W. Young Now Chief AVC

On August 2, Colonel Elmer W. Young, chief veterinarian, Q.M. Inspection Service Command, Headquarters Quartermaster Market Center, was ordered to the Army Surgeon General's Office as Chief of the Veterinary Division.

Colonel Young succeeds Brigadier General J. L. Hartman, who retired from the Army June 30, 1954.

Congratulations to Dr. and Mrs. C. Edward Taylor upon the birth of a son, Rex Paul Taylor, weight 8½ pounds, on August 5, 1954.

Health Requirements Governing Admission of Livestock

Through arrangement with the Department of Agriculture, Division of Animal Industry, State of California, the CSVMA has obtained a number of copies of Circular 1, U. S. Livestock Sanitary Association, titled "Health Requirements Governing Admission of Livestock."

Dated April 1, 1954, Circular 1 contains standard regulation governing the interstate movement of livestock, dogs, pets, poultry, birds, wild animals and biologics, and sanitary standards governing the cleaning and disinfection of cars, trucks and conveyances used for transportation of animals and poultry.

Pocket-size, the compact circular lists vital information on all states and territories, as well as comprehensive United States government regulations governing the inspection and quarantine of livestock and other animals offered for importation.

Copies may be obtained at 75¢ each, through the Executive Secretary, California State Veterinary Medical Association, 3004 16th Street, San Francisco.

The SPCA and the Veterinarian*

CHARLES W. FRIEDRICHS

San Francisco, California

The relationship of the SPCA and the veterinarian may be a bigger subject than you might think at first glance. At least one-half of that title needs some definition. Of course the letters SPCA stand for "society for the prevention of cruelty to animals," and before the Russians claim they invented that too, let me assure you that it has been well documented that the first such society was founded in London, England, in 1824. You may be further interested to know that the gentlemen who gathered together to organize this first society held their conferences in a place with the unlikely name of Old Slaughter's Coffee Shop. When you think of the SPCA today you can get a better perspective of its fundamental principles by considering the germ of this idea, which was born in that famous London coffee shop. The reasons which brought that first society into being have been present in the establishment of almost every society of similar purpose which has been organized from that day until this in many countries throughout the world.

In 1811, 13 years before the founding of the society, the Lord High Chancellor of England, Lord Erskine, had introduced a bill for "preventing wanton and malicious cruelty to animals." There had been other bills introduced to halt bull-baiting as early as the turn of the nineteenth century, but all such bills had miserably failed. Lord Erskine's bill was more general in character but it, too, failed. During the succeeding eleven years attempts were made to successfully get a bill through the British Parliament protecting animals from cruel usage, but it was not until the year 1822 that Richard Martin, an Irish member of Parliament from Galway, succeeded where others had failed. He had supported the bills of others beginning away back in 1800 when the first bull-baiting bill had been introduced. Twenty-two years later he had the satisfaction of seeing his own bill adopted. But even after the law had been passed for the protection of animals, there was no implementation of it, and it was this which led to the founding of the first society for the prevention of cruelty to animals.

That particular precept, although not that alone, has been a common rallying point and motivation for the founding of successive SPCAs to this day, namely, enforcement of laws of a particular and specialized nature in which law enforcement agencies in general apparently have little or no interest. Thus you have the rather unique situation of privately incorporated societies enforcing public laws.

I hardly need remind you that, while the dawn of the nineteenth century ushered in a new era for dumb animals as the chattels of mankind, those founders of the early societies to prevent cruelty to creatures incapable of self-protection were subjected to great vilification. Not only did they suffer from public apathy but, to a great extent, from public resentment as well. They were jeered at, cursed, attacked and lampooned. Their own courage, their belief in what they were doing, and the sustaining encouragement of the more humane citizens who came in slowly but ever-increasing numbers to their support was what carried them forward.

In the case of the British society, it was that organization's good fortune to win the attention of 16-year-old Princess Victoria. Upon her ascension to the throne in 1837, Queen Victoria instead of forgetting the society, renewed her patronage of it, and in 1840 she granted the society the use of the prefix "royal." From that day to this it has been known as the Royal Society for the Prevention of Cruelty to Animals.

Skipping a couple of decades and an ocean, let's take a look at the manner in which the first SPCA was to be founded in this country. I doubt if it could be termed significant, but in the light of today's conditions it is an interesting coincidence that the man who founded the first society in the United States was initially impressed with the unnecessary suffering of animals while he was on duty in a diplomatic post, to which he had been appointed by President Abraham Lincoln, in the Russian city then known as St. Petersburg, now known as Leningrad. Son of a well-to-do New York shipbuilder, Henry Bergh had never had much in the way of first-hand experience with man's inhumanity to animals or to mankind. But on the streets of St. Petersburg he daily witnessed cruelties which were revolting to his sense of justice, and it stirred his memory to the realization that such cruelties might also occur in his own country. He became imbued with the idea that something should be done about it. Upon completing his tour of duty as a diplomat, he returned to the United States by way of London and there he made the acquaintance of the Royal Society for the Prevention of Cruelty to Animals. When he finally reached home in New York, he enlisted the support of several influential friends who were in agreement with his principles, and he set about obtaining legislation which was finally adopted by the New York legislature. This first law, sometimes known as the Bergh law, was to become the model upon which all of the basic anti-cruelty laws of the several

*Excerpts from a talk delivered by Mr. Friedrichs, Executive Secretary, SPCA, San Francisco, at the 66th Annual Convention of the CSVMA, San Diego.

states of the United States were to be fashioned thereafter. Much of the language of California's basic anti-cruelty law, section 597 of the California Penal Code, was first written by Bergh. He also set about organizing the first SPCA in this country, and the title "American Society for the Prevention of Cruelty to Animals" came into being. That was in the year 1866. It was 66 years after the introduction of the first bull-baiting bill in England; it was forty-two years after the historic meeting of the few gentlemen who gathered in Old Slaughter's Coffee Shop in London. But, while almost a half-century had passed between the founding of the first SPCA in England, and the first to be founded in this country, other people in very widely scattered areas of the United States had been thinking along the same lines as Bergh, and within two years there had been incorporated the Massachusetts SPCA, the Pennsylvania SPCA and, clear across a continent, the San Francisco SPCA. The year was 1868.

A point which probably should be clarified is that there is no such organization as a nation-wide SPCA *per se*. While some of the larger societies have branches, there is no corporate connection. However, the societies are members of The American Humane Association, which bears a relationship to these societies very much the same as the AVMA bears to veterinarians. At the state level there are associations or federations such as the State Humane Association of California, which again bears a relationship to the individual societies of this state much as does the California State Veterinary Medical Association to its members.

In order to better understand the relationship between the various humane organizations and the veterinary profession, let's briefly examine the pattern of growth of the SPCAs in this country. After their founding and before the passage of too many years, a substantial number of these societies recognized the need for shelters wherein animals, either rescued from cruel owners or accidental predicaments, or simply abandoned to their fate, could be given temporary asylum until some decision could be made relative to their future. These temporary asylums or shelters were often expanded by public demand to include the care of stray or lost animals, and animals which for one reason or another could no longer be kept by their owners. In many communities no public pounds existed, and many of the societies gradually assumed the responsibility of handling this public function. In other communities existing pounds were disgraceful, both in the manner in which they handled animals and the manner in which they bilked the public. Often societies were requested by popular mandate to take over the operation of already established pounds. Some societies found a great need for clinics and hospitals in their communities for the treatment of animals.. In some instances veterinary practitioners were encouraged to take up residence and engage in practice through subsidies provided for them, or through the provision of quarters, both living and working. In still other cases actual hospitals were founded and built by such societies.

Day in and day out, throughout this land of ours, humane officers are ordering neglectful owners to provide veterinary attention for their animals. Court decisions in this regard are often made at the suggestion of humane officers. Conversely, veterinarians report many cases of neglect and cruelty, and they often serve as professional or expert witnesses in court cases. This working alliance includes both large and small animals, livestock as well as pets. The veterinarian's interest in the health and well-being of animals is axiomatic, and while there may be honest differences of opinion from time to time between individuals, it is seldom if ever that principles are involved. In fact, there are few human relationships where such differences do not occur. The fact is that the SPCAs and the veterinarians of this state, and indeed of this country, complement one another and should always strive to do so for their mutual attainments for the benefit of animal welfare.

During all the years that the SPCAs have been growing, expanding and working for the adoption of their principles, so, too, has the veterinary profession been growing in numbers, in stature, and in service.

The goal of the SPCA, stated in its simplest terms, is to work toward halting and preventing all unnecessary suffering of animals in every way possible, and to work and encourage the discovery of ways and means of rendering suffering now considered necessary, unnecessary. I believe that this is a precept to which the veterinary profession can wholeheartedly subscribe, and I believe it is one to which the veterinary profession does, in fact, subscribe. I urge that in keeping with a common dedication of purpose which the members of the veterinary profession and SPCAs share, that they seek to give the word "humane" its true meaning through cooperative effort.

Laboratory Refresher Training Courses

A schedule of Laboratory Refresher Training Courses has been announced by the Communicable Disease Center, Chamblee, Georgia, during the period July, 1954 to June, 1955.

Information and application forms should be requested from Laboratory Training Services, Communicable Disease Center, U. S. Public Health Service, P. O. Box 185, Chamblee, Ga.

Some Observations on the Effect of Nutrition on Immunity and Disease*

M. K. JARVIS, D.V.M.

Corn States Laboratories, Inc., Omaha, Nebraska

There has been very little work done on the effect of diet and antibody production. We have found it to be a very complex problem: therefore, I would like to discuss it with you from a practical point of view, emphasizing some of the questions that we are faced with as kennel owners and producers of bi-valent canine serum, and posing some of the questions which will apply to the practicing veterinarian who is attempting to immunize a puppy, or help rehabilitate a convalescing patient.

I am sure we will not be able to answer all of the questions, first because there is still a great deal of controversy over some of the basic principles of antibody formation in relation to diet, and secondly because there has been no definite work to prove some of the theories. Our interest was first focused on this problem when we noticed the varied results in the resistance of our dogs to infectious diseases. Also, the titer of the serum-neutralizing antibodies varied with different commercial foods. There was also a higher mortality rate with some foods than with others.

Due to the fact that it is necessary to maintain a healthy kennel and produce a high titer antiserum, we began to investigate the effects of nutrition on antibody production, and to try to discover if it could be better stimulated by regulating the diet of the dog being injected with the virus or viruses. To be able to intelligently feed our dogs in order to accomplish these goals, we had to learn something of the basic principles of nutrition as related to antibody production. This was done by reviewing the literature, and by experimentation. In the literature we found very little work on this particular problem involving dogs, as most of it represented work with rats or rabbits. We found there was a wide variance of opinion as to whether or not adequate nutrition is necessary for antibody production. There are some workers who have shown that the resistance of animals suffering from protein insufficiency was lowered, but that the agglutination response was no different in the protein depleted animals than in those of the control groups. We also found work that had been done in human medicine where patients suffering from hypoproteinemia had a much lower agglutination response than did the patients with normal blood-protein levels.

Cannon's work demonstrates that protein-deficient rabbits failed to produce antibodies as well as did the normal control rabbits.

Since antibodies have been proven to be of the same structural formula as other serum globulins, they must be derived from the same source; therefore, they need dietary proteins for their synthesis.

If we wished our dogs to maintain weight, and produce blood with an emphasis on antibodies, we would have to select a food which would help accomplish our goal. We set up a series of experiments, using various rations to help us solve this problem. All our experiments are not yet completed, but we did make some interesting observations from the ones which have been finished. We found that there was a definite correlation between resistance and the type of food fed to the animals, as the number of dogs lost was in direct relation to the quality of the food.

As an example, we used three pens of dogs, each with 14 animals, and each pen being placed on a different diet. All dogs were weighed, and blood samples taken to determine if there were any antibodies present. The specific gravity of the serum was also determined for each dog. They were vaccinated during the first week with distemper vaccine and with infectious canine hepatitis vaccine. During the third week, each dog was weighed and 10 cc of blood was taken. Specific gravity and antibody titers were determined from each sample. The fourth week each dog was weighed and bled by cardiac puncture, at the rate of 8 cc per pound of body weight. This practice was continued for six weeks. The weight of the dog, specific gravity of the serum, and antibody content of the serum for both distemper and infectious canine hepatitis antibodies was checked on each sample. We made the observations that there were 44 per cent more dogs lost among the dogs on poor feed than in the dogs on good feed for the entire experiment. The dogs on the better feed also showed a greater increase in the specific gravity than did the dogs on the poorer feed. Also, the surviving dogs had a greater antibody response to both the antigens of distemper and infectious canine hepatitis among the better fed dogs than among those on poorer feed.

This work indicates there is a relationship between diet and antibody response. However, it does not answer all of our questions.

If antibody response and nutrition is important in the adult dog, it can then be postulated that it is just as important in the puppy. A sound nutritional program should be recommended to coincide with the vaccination program, in order to achieve the best results. In-

(Continued on page 46)

*Presented at the CSVMA Convention, San Diego, June 21-23, 1954.

AVMA's Annual Convention Seattle, August 23-26, 1954

The AVMA's 91st Annual Convention will be held in Seattle, August 23-26, 1954. The meeting will combine closed circuit television with presentations of scientific papers dealing with all aspects and phases of veterinary medicine.

The schedule for the six television sections is as follows:

MONDAY, AUGUST 23, 1:30 TO 4:30 P.M. General Practice (TV) and Research.

TUESDAY, AUGUST 24, 9:00 A.M. TO 12:00 General Practice (TV) and Research.

TUESDAY, AUGUST 24, 1:30 TO 4:30 P.M. General Practice, Small Animals (TV), and Poultry.

WEDNESDAY, AUGUST 25, 9:00 A.M. TO 12:00 Small Animals (TV) and Poultry.

WEDNESDAY, AUGUST 25, 1:30 TO 4:30 P.M. Small Animals, Surgery and Obstetrics (TV), and Public Health.

THURSDAY, AUGUST 26, 9:30 A.M. TO 12:00 Surgery and Obstetrics (TV) and Public Health.

The three sections using closed circuit television will be held in the Metropolitan Theatre immediately adjacent to the Olympic Hotel. The sections on Poultry, Research, and Public Health will utilize the Olympic Hotel's Junior Ballroom and "Olympic bowl," both of which will easily accommodate expected attendance.

Headquarters will be in the Olympic Hotel.

Attending the convention will be Dr. Joseph M. Arburua, Executive Board representative for the Sixth District, AVMA; Dr. C. J. Parshall, Delegate to the House of Representatives, AVMA; Dr. E. E. Jones, Resident Secretary from California to AVMA, and Charles S. Travers, Executive Secretary, CSVMA. Mr. Travers will attend the editors' meeting, state secretary's meeting, publicity and public relations meeting, and the ethics meeting.

Applicants

Edward E. Rhode, Davis. Vouchers: Ghery D. Pettit, R. L. Collinson.

William A. Frey, Oceanside. Vouchers: S. W. Dingwall, C. J. Padfield.

Lyle A. Baker, Turlock. Vouchers: F. B. Koebel, R. R. Norton.

Glen G. Crosbie, La Mesa. Vouchers: P. D. DeLay, A. Mack Scott.

Max W. Colton, Escondido. Vouchers: F. B. Walker, Jr., Ben R. Stahmann.

Donald R. Cordy, Davis. Vouchers: D. E. Jasper, T. J. Hage.

Norman F. Baker, Davis. Vouchers: L. M. Julian, W. S. Tyler.

OPPORTUNITIES

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Illustrated Panels at Convention Tell Association's Story

For the first time in many years, illustrated panels helped tell the story of your association.

At one end of the Venetian Room four large panels were displayed, attracting considerable attention. One gave facts about "The California Veterinarian," picturing its growth, advertising content, special features, galley proofs, reprints, etc. It was of interest to many who were not familiar with the numerous details involved in publishing the largest state veterinary journal in the United States.

Another display showed the duties of the secretary, including reports, correspondence, testimonials, association insurance matters, requests for assistance, legislative action and printed office forms.

The third board featured exhibitors at the convention; a roster of members of the association and other data.

"Remember When" was the title of the fourth panel, which contained photographs of other meetings, individuals, human interest shots and groups, which brought back many memories.

Mrs. Martha Fowler, in charge of registration, designed the panels and did the lettering and artistic touches, assisted by Herb Warren, who handled press relations during the convention.

Apologies to Journal of the American Veterinary Medical Association

Our sincerest apologies to the Journal of the American Veterinary Medical Association for failing to obtain permission to print two articles carried in the May-June issue of THE CALIFORNIA VETERINARIAN.

These were "Equine Laparotomy," by W. J. Zontine, D.V.M., and W. F. Hughes, D.V.M., which previously appeared in the June, 1954 issue of the AVMA Journal, and "Mesothelioma, An Unusual Equine Tumor," by Charles H. Reid, D.V.M., appearing in the April, 1954 issue of the AVMA Journal.

The lack of credit mention was entirely unintentional.

Effect of Nutrition on Immunity

(Continued from page 44)

asmuch as young animals have a lower serum-protein value than do adults, it has been stated that "maturation of the antibody mechanism is retarded if the animal is not receiving sufficient digestible protein." Cannon has demonstrated that well-fed normal rabbits will produce 3 to 5 times the amount of demonstrable agglutinins as will protein-depleted animals.

We found in testing of infectious canine hepatitis serum that serum antibodies were developed more quickly in 12-week old puppies than in 8-week old puppies. Gillespie proved that puppies of less than 10 weeks of age would not produce antibodies for distemper. These observations would indicate that there may be some relationship between the development of antibody mechanism and the serum-protein level.

The sick dog and antibody production poses another problem. It has been stated that "for effective production of antibodies, it is necessary to restore protein reserves. If the capacity for protein synthesis is not defective, repletion and improved production of antibodies may be expected." As we said before, highest titers were found in patients with normal protein-serum levels; next highest were in patients with low protein-serum levels, but being fed a high protein diet; and the poorest antibody response was with patients with a low protein-serum level and on a low protein diet.

This might help to explain why some dogs suffering from distemper or some other wasting disease are particularly susceptible to bacterial invasion. This may also be true of kittens which have had a long bout with pneumonitis, as many of them die from bacterial infection.

Help might be afforded to these dogs suffering from wasting diseases and refusing food, through the use of supportive treatment of hypodermoclysis and injectible amino acids.

In human beings, however, there is some controversy as to whether these theories apply. It has been shown that patients suffering from some of the wasting diseases will have the same or better antigenic response as will healthy controls. It has also been found in human patients that there is no relationship existing between antibody response, age of the patient, initial antibody level, and total serum protein.

Our gross observation in animals does not agree with this. We have practiced placing all our cats recovering from panleucopenia in separate pens which we refer to as the convalescent pens. The cats in the convalescent pens receiving the better diet gain weight more quickly, and we have a much lower mortality rate from bacterial infection than in the convalescent cats on a standard or poor diet.

GRADUATING CLASS OF SCHOOL OF VETERINARY MEDICINE, DAVIS

The June, 1954, graduating class of the School of Veterinary Medicine, University of California, Davis, consisted of 52 members, which this year included no women. Most of the graduates, according to Dean D. E. Jasper, will remain in California. Oregon, Arizona and Hawaii will claim one each, while four or five will enter military service. Statistically, about 20 students are planning to enter mixed practice; 18 will enter small animal practice; six will confine their activities to large animals, and the remainder are as yet undecided. As was true in the past, no difficulty was experienced in finding locations.

Lederle Announces New Products for Veterinarians Only

A new line of professional products, including Polyotic (tetracycline), the first broad-spectrum antibiotic for animal use to be available exclusively to veterinarians, as well as other products hitherto marketed through non-professional outlets, has been introduced by Lederle Laboratories Division, American Cyanamid Company.

Available after July 1, 1954, the Lederle professional veterinary line includes the following pharmaceuticals and biologicals:

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Additional products to be added to the line will be announced as they are available.


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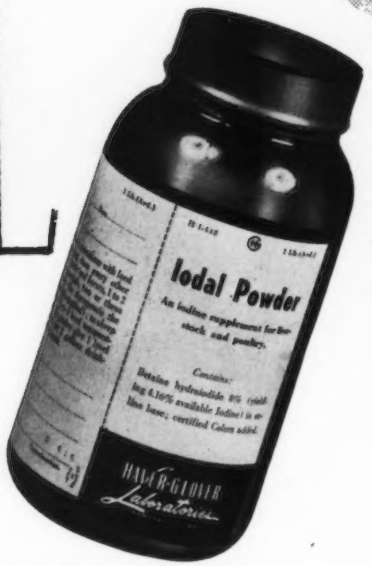

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Iodal Powder which contains 8% betaine hydroiodide (representing 4.16% elemental iodine) is indicated as a conditioner and feed supplement in iodine deficient areas. It is recommended in the treatment of conditions suspected of being due to insufficient iodine intake, such as **chronic bronchitis, hyperplastic fibrous tissue, prevention of still-births, hairlessness** or **goiter, actinomycosis, infertility,** etc.

Iodal Powder is stable, neutral, and almost odorless. It may be mixed in feed or drinking water or administered as a drench.

Supplied in: 1 lb. or Ctn. 12-1 lb. (disp. labels).

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TWO NEW PRODUCTS

(Chick Embryo Origin — Modified Live Virus Vacuum Dried)

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Infectious Hepatitis Vaccine

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ADHEP RX*

A chemically killed suspension of virus laden canine tissue adsorbed onto aluminum hydroxide.

1 cc. of Adhep intradermally confers solid immunity in less than two weeks.

Serve your clients better by reminding them that young puppies should be vaccinated as soon as possible after weaning.

Supplied in:
1 cc. Single Dose Vials
6-1 cc. Single Dose Vials

CANINE DISTEMPER VACCINE

Full stabilized, chick embryo propagated, modified live virus. Research Laboratories Canine Distemper Vaccine is scientifically vacuum dried and sealed — your assurance of immunizing potency and safety.

Supplied in:
2 cc. Single Dose Vials with diluent.
6-2 cc. Single Dose Vials with diluent.

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